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Clinical education of BSC OT students by clinical occupational therapists: a mixed methods study

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CLINICAL EDUCATION OF BSc OT STUDENTS BY CLINICAL OCCUPATIONAL THERAPISTS: A MIXED METHODS STUDY

Patricia Ann de Witt

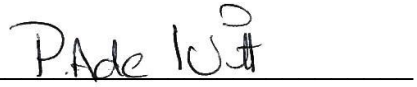
A thesis submitted to the Faculty of Health Sciences, University of Witwatersrand, in fulfilment of the requirements of the degree of Doctor of Philosophy.

Johannesburg, 2016

DECLARATION

I, Patricia Ann de Witt, declare that this thesis is my own work. It is being submitted for the degree of Doctor of Philosophy in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

1st day of August 2016



Signature

PUBLICATIONS AND PRESENTATIONS ARISING FROM THIS THESIS

PUBLICATIONS

de Witt PA, Rothberg A, Bruce J: Occupational Therapy Managers Role in and Perception of Clinical Education SAJOT 44(1) p 9-14

de Witt PA, Rothberg A, Bruce J: Clinical Education of Occupational Therapy Students: Reluctant OT-CEs SAJOT 45(3) p28-33

de Witt PA: Ethics and Clinical Education (In press).

PRESENTATIONS

Oral presentation: Ethics of Clinical Supervision Gauteng Provincial Occupational Therapy Expo, Chris Hani Baragwaneth Academic Hospital Johannesburg 10 May *2012.*

Oral presentation*:* Would South African Occupational Therapists benefit from professional supervision? OTASA Congress, Durban, 4-6 July 2012.

Poster presentation: Occupational Therapy managers' perceptions of student clinical education University of Witwatersrand, Faculty of Health Sciences, Research Day 19 September 2012.

Oral presentation: Complexities of Clinical Education Department of Occupational Therapy Clinicians Meeting July 2013

Oral Presentation: Perceptions of Clinical Education in an African context OTARG Congress in Zimbabwe August 2013.

Poster Presentation*:* Perceptions of Clinical Education on the Wits teaching Platform School of Therapeutic Sciences Research Day September 2013.

Oral Presentation: Importance of Role-Models in Clinical Education Wits Physiotherapy Department's OT-CEs Information day December 2013.

Oral Presentation: Is your OT background enough to 'supervise' students? OTASA Congress April 2014.

Oral presentation: Perceptions of Clinical Education in South Africa WFOT Congress in Japan August 2014.

Oral presentation: Development of an occupational therapy clinical educator skill-set. OTARG September 2015.

Poster presentation: Occupational Therapy OT-CE's: Knowledge, Skills and Values of Clinical Education. Faculty Research Day September 2014.

Oral presentation: Perceptions of knowledge and skill about clinical education OTASA congress July 2016.

DEDICATION

This work is dedicated:

Firstly to all occupational therapy students as learners and all occupational therapy clinicians as clinical teachers who dedicate time and energy to the achievement of clinical competence as an investment in the future of the profession.

In my many years of teaching occupational therapy students I have become acutely aware that what is learnt in the clinical context is far more impactual than anything students learn in the classroom. What an occupational therapy student observes, hears and experiences about the profession in the context of professional practice has a lasting influence on their professional identity and professional development far beyond their student years. Thus I fully endorse the sentiment of Susan Meyers, Doctor of Education at Indiana University, who stated:
"The role of clinical supervision [education] is one that should not be left to chance; it is too important and deserves to be more uniformly approached based on theoretical and practical knowledge" [1 p vii]

Secondly to my brave and very special grandson, Joshua, and to all the occupational therapists who have contributed to us understanding how to make his life meaningful and fulfilling in spite of his disability. And for reminding us as a family, that who he is and what he can do is much more important than what he can't and that disability is not a life sentence. Only a challenge to be resolved.

ABSTRACT

This sequential exploratory mixed method study involved:

Part 1:

Factors influencing the quality of clinical education for occupational therapy students.

A qualitative study revealed that despite pockets of excellent clinical education there were quality issues. Factors affecting quality: lack of clinical education knowledge; time pressures; poor role-modelling; inconsistent student assessment; coping skills; attitudes to learning and the clinical curriculum.

Quantitative studies illustrated that undergraduate courses provide little knowledge and skill that prepare graduates for future roles as clinical educators. Departmental managers provide limited support and little educational leadership. The academic department provides support and procedural training but this is insufficient. Training was recommended.

Part 2:

Examination of training of clinical educators to improve quality.

An integrative literature review was used to develop a clinical educator skill-set.

A survey was used to collect clinical educators' rating of their knowledge, skill and attitude to clinical education. Results showed a gap in knowledge and skill and a significant difference between experienced and inexperienced clinical educators.

Practical action research was used to design and develop a training programme for inexperienced clinical educators.

A quasi-experimental pilot study tested the value and outcome of the training. Before and after training scores of 22 participants were significantly different, but training failed to demonstrate any improvement in quality from the students' experience. Methodological problems in data collection may have influenced the results.

Conclusion:

Current clinical education lacks administrative and pedagogic consistency which is not ameliorated by a single intervention for inexperienced clinical educators. A model for additional training is proposed.

ACKNOWLEDGEMENTS

The completion of this thesis was only possible without the support and encouragement of many people.

- Associate Professor Alan Rothberg and Professor Judy Bruce: my two long suffering supervisors. Thank you for all your support and encouragement, especially for your belief that this was an achievable project of value when I had serious doubts.

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- To all the participants who participated in the many aspects of this study. Thank you for giving up you time for helping me understand the complexities of the clinical education of occupational therapy students and for sharing your views on how to make it an easier journey for everybody

- To my daughter, Brenda, for her interest, concern and support from afar.

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NOMENCLATURE

DEFINITIONS

Clinical education site: is a hospital, health centre, clinic, school or non-profit organization that provides occupational therapy services and is registered with the Health Professions Council of South Africa as a site which may provide clinical learning opportunities to occupational therapy students.

Clinical teaching platform: refers collectively to all clinical education sites where occupational therapy students of the University of the Witwatersrand undertake their clinical education.

Council for Higher Education: is an independent statutory body responsible for advising the Minister of Higher Education and Training on all matters relating to policy and quality assurance in the higher education sector [2].

Education and Training Quality Assurance: is the responsibility of the Professional Board for occupational therapy, medical orthotics and prosthetics and art therapy who have designated and trained individuals who monitor national standards or qualifications of occupational therapy programmes in terms of the South African Qualifications Authority Act section 5(1)(a)(i) [2].

Full time employee: refers to individuals who are employed for 100% of their working day for a single employer.

Health Professions Council of South Africa: is a statutory body established in terms of the Health Professions Act 56 of 1974 which was amended in Act 29 of 2007 to align its powers are with National Health Policy. The mission is to protect the public and give guidance to practitioners on the Council's various registers [3].

National Qualifications Framework: is an integrated framework for South African Education and Training, promulgated by the National Qualifications Act 64 of 2007 [2].

Occupational therapy clinical educator: is a qualified occupational therapist employed and paid by the clinical education site and who works on site and contributes to the daily clinical education of fourth year occupational therapy students during each of their clinical education blocks.

Professional board for occupational therapy, medical orthotics and prosthetics and art therapy: comprises of ministerial appointees from each group of practitioners registered with this Board, as well as elected community, Department of Health and higher education representatives. Their purpose is to protect the public and give guidance to practitioners registered with the Board. In addition, the Board has been awarded the standards generating and quality assurance function by the Council for Higher Education for all qualifications of practitioners on their registers [4].

Part time employee: refers to individuals who are employed for part of their working day (varies from 20-80%) for a single employer.

Programme: is the term for a degree programme.

Sessional employee: refers to individuals who are employed on a contract basis for no more than 280 hours within a year.

South African Qualifications Authority: is a statutory body whose mission is to develop and implement the National Qualifications Framework [2].

Standards Generating Body: is the responsibility delegated by South African Qualifications Authority to establish educational standards and qualifications in accordance with the National Qualifications Framework [2].

Unit: is the term used to refer to courses that make up a programme that may be compulsory or elective.

University academic tutor: is a qualified occupational therapist, employed by the University of Witwatersrand on a sessional basis. They are responsible for assisting at-risk and failing students individually or in small groups. They assist with learning difficulties and focus on implications of the theoretical content so that students can transition their theoretical knowledge to the clinical situation. These university academic tutors see students after hours on referral from the university academic staff.

University clinical education tutor: is a qualified occupational therapist employed by the University of Witwatersrand on a sessional basis. They are responsible for the clinical education of the second and third year occupational therapy students and have a monitoring function with regard the consistency of the clinical education of the fourth year occupational therapy students over a number of clinical education sites.

University educator: is a qualified occupational therapist employed by the University of the Witwatersrand, either full or part time, to educate students registered within the occupational therapy programme. University educators are responsible for designing and quality assuring the curriculum including the clinical curriculum; the classroom teaching and the clinical education of the second and third year occupational therapy students and ensuring the final year students meets the exit level outcomes at the summative examination. They are also responsible for any remedial needs of at risk or failing students.

LIST OF ABBREVIATIONS

CHE	-	Council for Higher Education
ETQA	-	Education and Training Quality Assurance
HPCSA	-	Health Professions Council of South Africa
NQF	-	National Qualification Framework
OT-CE:	-	Occupational Therapy Clinical Educator
OT-CEs	-	Occupational Therapy Clinical Educators
OTD	-	Occupational Therapy Department
OTS	-	Occupational Therapy Student
OTSs	-	Occupational Therapy Students
OTT	-	Occupational Therapy Technician (Mid-Level Workers)
OTTs	-	Occupational Therapy Technicians (Mid-Level Workers)
SAMDC	-	South African Medical and Dental Council
SAQA	-	South African Qualifications Authority
SGB	-	Standards Generating Body
WFOT	-	World Federation of Occupational Therapy
Wits	-	University of the Witwatersrand

CHAPTER ONE

1. EDUCATION OF OCCUPATIONAL THERAPY STUDENTS

1.1 INTRODUCTION TO STUDY

This research study focused on the clinical education of occupational of therapy students (OTSs) which is a significant component of the educational package offered on their educational journey to clinical competence at the entry level of the profession. Clinical education by its nature cannot occur in the classroom nor can it be separated from the classroom learning and theoretical curriculum. University occupational therapy departments (OTDs) rely on practising occupational therapists in busy practice settings to ensure that OTSs transition their classroom knowledge and skill into clinical competencies through assessing and treating clients with differing occupational dysfunction as a result of a wide range of conditions and circumstances.

Clinical education occurs with varying levels of success. In some cases it is accompanied by a wide range of challenges and difficulties which impact on OTSs' clinical learning. The beliefs about clinical education differ among occupational therapy clinical educators (OT-CEs) as do the understandings of processes whereby clinical education occurs. Views about who is ultimately responsible for its success also vary.

Students pay dearly for their education and rightly are increasingly holding university OTDs accountable for all their learning, not just the teaching and quality of educational tasks that need to be completed, but also for their educational experience and how this contributes to their professional competence, identity and confidence. University OTDs find it difficult to quality-assure all aspects of the educational offering to students that are not under their control such as clinical education.

This research has been a journey of exploration to understand the complexities of clinical education: the challenges and shortcomings, as well as the strengths of the current situation. Each step of the research evolved from the insights uncovered in the previous steps. Due to the nature of the research it has followed a rather unconventional process and will therefore be presented in a rather untraditional format.

This thesis records the evolution of the research which started with a review of current literature pertaining to the development of the occupational therapy profession and

occupational therapy education in particular. This is reported in Chapter One which provides background information on much of clinical education that is taken for granted and not really reflected on by clarifying definitions roles, responsibilities and processes. Clarity on these concepts was required before exploring the phenomenon of clinical education on the Wits clinical teaching platform. Chapter Two describes clinical education on the Wits clinical training platform and introduces the issues that led to the initiation of this research. Chapter Three gives an overview of the research methodology throughout the many components that contributed to the study.

Chapters Four and Five together can be considered the first part of the actual study, describing clinical education of OTSs on the Wits teaching platform and the fixed sequential exploratory mixed methods study undertaken. The goal was to explore and understand clinical education on the Wits teaching platform from the perspective of all role players, as well as the training and support offered to OT-CEs responsible for undertaking these responsibilities. These two chapters culminated in the identification of challenges to clinical education.

The second part of the actual study is directed towards a solution to the challenges that were uncovered. Chapter Six therefore, describes the development of an occupational therapy clinical educator (OT-CE) skill-set and an OT-CE training programme, while Chapter Seven describes the pilot study to critically evaluate the OT-CE training programme that was presented. Finally Chapter Eight draws together the findings from all preceding chapters and recommends a way forward.

1.2 REVIEW OF THE LITERATURE

The education of health science professionals, including occupational therapists, is not an exact science with clear rules and parameters that are cast in stone [5, 6]. It is more an evolving science, where the education of potential health science professionals, within the scope of the minimum standards of training for national and international practice, is complex, dynamic and responsive to changing needs and circumstances [7]. Education of all professional groupings within the health sciences family is underpinned by many factors such as national and international health and educational needs, socio-political and socio-economic pressures, research and progress within the various professions as services are developed and delivered [8, 9]. In addition, the power base and advocacy

roles of the different professional groups also impact decisions pertaining to education [10].

The following review, based on national and international literature, aims to describe the factors which have influenced the development of occupational therapy as a profession, and therefore the education of OTSs, particularly the clinical education aspect thereof.

1.2.1 Development of the Occupational Therapy Profession

Occupational therapy is a relatively young profession, with its roots in the United States of America (USA), dating back to 1907. The value of '*active engagement in activities'* was recognized at that time as a means of helping the physically disabled war veterans to cope with their injuries. The first occupational therapists, named 'reconstructive aides', were tasked with giving disabled soldiers '*something useful to do'*, so as to give purpose and meaning to their lives. In 1920, this service was extended to include clients in mental hospitals. The philosophical roots and tenets of the profession were thus established [11, 12].

Since then, there have been five distinct phases of the development within the profession, influencing both the practice of the profession and the education of students [12].

The first phase took place in the 1930's when a more scientific basis for the profession was developed. The scientific basis aimed to explain from anatomical, physiological and psychological perspectives how and why engagement in meaningful activities/occupations influenced recovery from illness and coping with disability. The second phase dated from 1942 until the late 1950's when the profession was aligned to the disability movement and the rehabilitation of World War II veterans. Occupational therapists became experts at adapting and making therapeutic equipment to enable engagement in activities/occupations [12]

Phase three occurred between 1960 and 1970 when due to the profession's early focus on people with disabilities and mentally ill clients, occupational therapy became closely aligned to medicine. Professional developments focused on specialization, and different medically aligned fields of practice emerged. Medically based techniques and

procedures became the focus of occupational therapists' intervention and the use of 'activity/occupation' as the primary treatment modality was disputed. Although activities of daily living remained the expressed central focus of attention, the underlying basis for intervention was related to the reductionist view of pathology and underlying body system disturbances. Occupational therapy intervention during this period was directed to manipulation/adaptation of the body systems to enable clients' engagement in their activities of daily living. As a result, occupational therapists developed expertise in well described medically related and medically approved techniques, which became the means to improving occupational functioning. As they gained recognition these intervention techniques were classified as per the medical paradigm, and medically aligned fields of occupational therapy practice were described. Thus occupational therapy practice became entrenched in the medical condition and related pathology, and lost sight of the complexity of the life roles and resultant occupations, the individuality of the client as well as the natural context in which these occupations usually took place [13, 14]. This resulted in the profession losing the primary notion of 'holism' that was fundamental to the philosophy, as the fields of practice compartmentalized the client [15], and unity of the human systems (mind, body and brain) which are essential for engagement in occupation was lost [16].

In response to what was considered a professional crisis, phase four took place over the next twenty-five years as the occupational science movement was established. The occupational science movement aimed to re-establish the core values around activity and occupation in occupational therapy, and to develop a unique, undisputed and well researched knowledge paradigm for the profession [15].

The current fifth phase of professional development is aimed at closing the apparent gap between professional development and practice, and advocating for 'occupation-based models' to guide practice and an 'occupation-based taxonomy' to explain practice. Understanding a person's occupations and the problems that can arise extend beyond physical, natural and medical sciences and therefore the solution of such problems require a mind-set that extends beyond the medical model. Such thinking must incorporate the notion that the occupational dysfunction that co-exists with disease and disability is not limited to pathology. Occupational therapy must enable the development of occupational competence and the intrinsic motivation to participate fully in life [11, 15].

These phases of development have alternately aligned and distanced the profession from mainstream medicine, influencing its position as a key provider of health care services, resulting in the profession's unique role often being misunderstood and minimised [15, 17].

The profession's philosophy as health care provider within the current context of health service provision is based on an often not-well-articulated interrelationship between 'health' and 'occupation', not only in the provision of curative and rehabilitative services, but also in terms of the role the profession can play in health promotion and the prevention of ill-health and disability. Not 'occupation' in the sense of a job, vocation or productivity [18], but in the sense of occupation as the meaningful, purposeful and culturally approved activities that people engage in every day as part of their daily routine and constructive and meaningful use of time [13, 17, 19, 20]. This underpins the roles, functions and scope of occupational therapy in the belief that human engagement in healthy occupations promotes health and wellbeing, and prevents ill health and dysfunction. In addition, engagement in healthy, meaningful and purposeful occupations also promotes health and wellbeing in persons whose health has been compromised by illness, trauma and disability, and in those whose occupational performance has been limited by developmental and contextual problems [18, 21].

This 'occupational' vision of health is in keeping with the broader and more 'social' definition of health accepted by the World Health Organisation (WHO) [22], and was a guiding principle in the reconstruction of health services in post-apartheid South Africa [23]. Furthermore, this 'occupational' definition of health is reflective of the Ottawa Charter that describes health as being 'created and lived by people in the settings of their everyday life: where they learn, live, play and love' [24 p 8] on which the primary health care model, adopted for South Africa, is grounded.

In the context of health care, occupational therapy, like medicine and nursing, developed from service and practice rather than through academic endeavour [25]. This has plagued the profession's development as a scientific discipline, although the scientific tenets of the profession were well articulated early in its development by Adolph Meyer and Eleanor Slagle, and especially emphasized by Mary Reilly in her paper 'Occupational

therapy can be one of the great ideas of 20th Century Medicine' [11]. However, a lack of academic activity failed to provide the evidence to support her assertion. Until the mid-1990's, there was limited agreement within the profession about the nature and the extent of the knowledge base needed to support practice, or around professional beliefs and values; Thus theories to explain 'occupational phenomena' were borrowed from many sources [15].

Occupational therapy, like many of the medical family's professions, became an applied science with well-defined procedures, techniques and technical knowledge, but without a fundamental science base [17]. In 1986 Phillip Austin articulated the profession's paradigm insecurities [20, 26] at a congress in the USA when he asked:
'*What is it that makes occupational therapy an academic discipline, as opposed to simply a program of training in applied activity that incorporates the theoretical base and methodologies of other fields? This is the primary question that has to be answered before we can turn our attention to larger pedagogical and scholarly concerns*' [26 p.52].

To address Austin's question the University of Southern California under the leadership of Dr. Elizabeth Yerxa established a new PhD programme entitled Occupational Science. Occupational science was defined as a new multi-disciplinary academic discipline to study humans as occupational beings. The aim of this discipline was to develop the basic science that would investigate 'occupation in its entirety' [20 p.270] and the manner it relates to both ability and disability, but without application to occupational therapy. The goal was that knowledge, understanding and evidence from these investigations would provide occupational therapy with a well-articulated body of information to support practice, education and the future of the profession as an academic discipline [15].

While the University of Southern California has proved to be the centre of excellence for occupational science in the USA, in Australia Ann Wilcock also committed her energies to the development of this field. Her doctoral thesis, which examined the relationship between occupation and health and the role of occupational therapists in the public health arena, has influenced professional developments and education around the world [27, 28].

These two centres, at opposite ends of the world, have driven the occupational science agenda, both jointly and independently. Their success is evident in the increasing number of publications in books and peer-reviewed journals, including the Journal of Occupational Science which is internationally renowned. The growing number of papers with an occupational science approach presented at national and international conferences, and the plethora of occupation-based models for practice, also attest to the establishment of the field. Finally, there is the inclusion of the occupational science knowledge base and philosophy in the WFOT minimum standards of training and practice that guide occupational therapy throughout the world, including in South Africa [7, 20, 29]. The central emphasis on this occupational-based philosophy for occupational therapy is reflected in the new South African Minimum Standards of Training for Occupational Therapists as well as the proposed new Scope of the Profession and Scope of Practice [29, 30].

The review by Molke, Liliberte-Rudman and Polatjko on the development of occupational science as an academic discipline during its first decade suggests that this discipline is in its 'adolescent stage' [20]. International interest is growing, and the relationship of occupation to social justice is a substantial emerging theme [31, 32]. However, it should be noted that there has been criticism that the developments in occupational science have focused too much on the individual rather than the individual in his social context, and have not taken sufficient cognisance of the inter-relatedness of the environment and occupations [33, 34].

While this professional paradigm shift has been easy and liberating for some occupational therapists, it has been difficult, half-hearted or impossible for others. This resistance to change in professional thinking and practice is not unexpected; for example Kuhn describes the time following a professional paradigm shift as being one of dissent as different factions defend their stance both epistemologically and methodologically [35]. This tension has resulted in 'occupation-based practice' continuing to predominate in theory but not always being evident in practice, leaving a mismatch or gap between theory and practice, which continues to plague both the profession and education, particularly the clinical education of students.

To some extent the environment in which South African occupational therapists work and practice (except perhaps within community based practice), supports the medical view of health and illness, in spite of WHO and government advocating a more social view[22-24]. In hospitals and clinics, an authoritarian and paternalistic attitude prevails, with little value for client independence and autonomy. Since people are sick and in hospital they are placed into a 'sick role' and are expected to comply, both implicitly and explicitly, with professional orders. Hospital stays are frequently short in response to resource limitations, managed health care or other medical insurance restrictions, and pressure on beds fosters discharge as soon as the client is medically stable rather than when the client is physically, mentally recovered and competent /independent from an occupational therapy perspective. While the client may not require daily attention from a doctor or nurse, discharge is often premature in the sense that clients may still be dependent, often with little idea as to how to carry out activities of daily living in their own homes and context in a health promoting and safe manner [15, 36]. In preparing a client for discharge, interventions and adaptations are needed to enable effective occupational performance. These are at best difficult, out of the context from which the person comes, and may be unrealistic in terms of the occupational behaviours the context advocates. Often budgets do not provide the appropriate resources to allow occupational therapists to carry out this essential part of their work, as they may be confined to hospitals and clinics and are not allowed to visit clients' homes.

Thus, the practice context frequently encourages techniques that are inherently bound to illness and the pathology. This medical model approach does not clearly articulate with the rationale for occupational therapy's unique role, and thus the consumers, referring agents and other professionals have difficulty in understanding the purpose and philosophy of practice [37]. This ultimately influences the status of the profession, the provider-client relationship, the professional identity of practitioners and satisfaction on the job, all of which have implications for the education of OTSs, especially in the clinical component of their course.

1.2.2 **Development of Occupational Therapy Clinical Education**

Since the establishment of formal training for 'reconstructive aide' (the early name for occupational therapists) in 1911 there was recognition of the fact that both classroom and fieldwork education were required [38]. In 1923, the newly formed American

Occupational Therapy Association (AOTA) provided the first guideline of three months of fieldwork education following a nine-month period of occupational therapy classroom education. This three-month period was equated to 576 hours: 12 weeks of fieldwork at 48 hours per week. In 1927, it was recommended that this be increased to six months. However, the first minimum standards adopted by AOTA in 1935 stated that the programme should include a minimum of 100 full time weeks of classroom experience and 36 weeks of clinical experience (1728 hours), and that this should be completed under the guidance of a registered occupational therapist [38]. In 1965, AOTA reduced the minimum number of clinical weeks to 24 (1152 hours), but specified that half should be completed in a psychiatric setting and the other half in a physical setting (576 hours each). Although there have been many changes to the AOTA guidelines, including guidelines related to the experience and duties of OT-CEs, the clinical hours and weeks have remained relatively unchanged [1]. A minimum of 1000 clinical education hours is the current accepted norm, which is in keeping with that recommended in the WFOT minimum standards for training [7]. It is not clear from the literature why 1000 hours was believed to be the appropriate time period in which OTSs developed exit level skills, but it appears to be historical [1] or perhaps logistical rather than based on any empirical evidence [39]. Similar hours have also been noted for physiotherapy [40]. In order for South African occupational therapy qualifications to be recognized internationally and to allow for professional exchange, South African OTSs are also required to complete a minimum of 1000 hours of supervised Clinical education during their education programme [7, 29, 41].

The WFOT requires that these 1000 hours be spent specifically on:
'interpreting specific person-occupation-environment relationships and their relationship to health and wellbeing, establishing and evaluating therapeutic and professional relationships, implementing an occupational therapy process (or some aspect of it), demonstrating professional reasoning and behaviours, and generating or using knowledge of the contexts of professional practice with and for live people' [7 p.33]

The purpose of this Clinical education is to integrate knowledge, professional theories and principles into real life practice. It is through practical experience and using clinical reasoning that OTSs develop the knowledge, skills, attitudes, and competencies required of an entry level or novice occupational therapist [1].

Although the value and necessity of this clinical education in the development of clinical competence in the student occupational therapist is undisputed [42, 43], the minimum number of hours that have been prescribed to achieve the exit level outcomes has been a subject of continuous debate.

Research in Canada suggests that even 1200 hours are probably too few to achieve the prescribed professional competencies of a novice occupational therapist [44], while Walters argues that the evidence for 1000 hours of clinical education as a criterion is weak, and the number could be reduced provided that quality clinical supervision is given [45]. A fairly limited international five-site study suggested that the prescribed 1000 hours of clinical education may be sufficient for attaining competency in most clinical competencies, but was insufficient for the development of clinical reasoning, practice knowledge and facilitating change [46]. In spite of considerable debate on this issue, no substantial scientific evidence exists to support whether a minimum of 1000 hours of clinical experience is excessive or insufficient to achieve the required levels of competence of an entry level or novice occupational therapist.

The on-site OT-CE is essential to learning in any clinical context, irrespective of the 'number of hours' required to achieve competency [41]. The OT-CE is responsible for providing critical 'real life' learning opportunities, facilitating the practical application of theory and principles of treatment, critically reviewing the prescription of therapeutic occupations, occupation related interventions and the development of clinical reasoning. The OT-CE is also required to help OTSs reflect critically on their practice [1]. In addition, the OT-CE must continuously and critically appraise, assess and grade the OTSs' performance, give appropriate feedback as well as socialise the OTSs with regards the philosophy, values and behaviours expected by the profession [44, 47]. Thus, clinical education is the process through which this clinical learning occurs.

Although 'clinical supervision' is the term that is widely used to describe the interaction that occurs between an occupational therapy student (OTS) and the qualified occupational therapist during the process of education and training, it is a controversial term and some authors suggest that it may not be the most appropriate term to use [40, 48].

The term ‘clinical supervision’ is reported to have its roots in psychotherapy [48], and has been described in recent professional literature as a clinical governance strategy that is used to ensure that soon-to-be qualified occupational therapists are safe and effective practitioners [49]. Furthermore, it aims to facilitate continuous professional development (CPD) and learning from day-to-day practice through self-assessment, analytical and self-reflective skills [50]. Clinical supervision also aims to ensure that newly employed occupational therapists are able to develop short and longer-term personal and professional plans, (including CPD) to improve health care delivery and job satisfaction [51].

There is, however, a subtle difference between ‘clinical supervision’ as described above for qualified occupational therapists, and that needed to help an OTS develop the exit level professional competencies necessary for graduation. Although the teaching and learning of OTSs in fieldwork sites may include elements of clinical supervision, such as learning from day–to-day clinical practice, self-awareness and analytical self-reflection, the preferred term and the term most widely used in international occupational therapy literature is ‘clinical education’ rather than ‘clinical supervision’ [40, 52]. The term ‘clinical education’ will, therefore, be used in the context of this research.

Thus in the context of clinical education in South Africa, the on-site OT-CE has to be a qualified occupational therapist [7]. The OT-CE is responsible for the transition of knowledge, skills and attitudes learnt in the classroom at the university, into professional occupational therapy with real clients in a variety of real clinical settings [7, 53, 54].

The variety of settings in which OTSs gain clinical expertise should, according to the WFOT minimum standards, reflect the ‘depth and breadth’ of the profession and ‘include traditional clinical sites as well as sites where occupational therapy practice is emerging’ [7 p 21]. The implication of this is that students need clinical education to be provided in many contexts, which often precludes substantial time at any one site.

The site of clinical education influences the nature of the education and professional competencies which students are expected or able to develop. Thus, clinical education of the OTSs should reflect the major fields of practice and take place in well-established training sites such as hospitals, care centres, health centres, clinics, special schools as

well as in developing community sites. The latter involves 'practice learning' which reflects social responsibility [55]. Practice learning should include learning opportunities that reflect community engagement through partnerships and inter- and multi-sectoral collaboration. The aim is to provide community based occupational therapy expertise to occupationally dysfunctional individuals and groups that have been disempowered within their socio-political, economic, occupational and cultural contexts [56]. This has particular relevance to South Africa.

For the past decade the international professional literature has cited political pressure to increase student numbers in all the allied health professions, mainly to accommodate increasing service demands resulting from health service reforms. In the USA, Canada, England and Australia the number of OTSs being trained to meet the human resource needs has increased substantially, resulting in an increase in the number of universities offering courses, and an increase in student numbers in each course [8, 57]. To accommodate the pressure to increase student output, occupational therapy courses have been structured in a variety of ways other than the traditional 3 or 4-year diploma or undergraduate degree. This strategy aimed not only to attract more students, but also to offer a variety of educational options [40]. However, each of the above mentioned countries is also reporting a crisis in the clinical education aspect of occupational therapy training, resulting from an increasing number of students in the face of a decreasing number of clinical education sites and qualified staff willing to accommodate OTSs [40, 58]. The problem of decreasing numbers of OT-CEs relates inter alia to increasing pressure in the work place to improve productivity and/or to expand the primary care platform in urban and rural areas. In this rapidly changing occupational therapy professional domain, together with a lack of training and expertise in clinical education, clinical staff often feel inadequately equipped to take on the responsibility of the clinical education of OTSs [58]. Similarly, in South Africa there is pressure to increase the output of all health professionals including occupational therapists. The 2011 National Department of Health's Human Resource Plan proposed a sharp increase in the number of occupational therapists required to serve the country's needs. Although no specific numbers have been released, the statistics suggest that universities will need to increase the output of OTSs by approximately one third in the next decade [59].

In some countries OT-CE training is a requirement before any qualified occupational therapist can take responsibility for the clinical education of students in any clinical practice or service-learning site. Training for OT-CEs internationally varies from informal to formal, from being fairly unstructured to being very structured, and from being a requirement in some countries to no more than an assumption of competency in others [60].

In the USA, structured training goes beyond the WFOT expectation of one year of clinical experience in order to be an OT-CE [7]. In 2008 AOTA introduced a requirement that all potential OT-CEs had to be 'adequately prepared to serve as a field work educator' [60 p.1]. This preparation involves five role competencies: knowledge, critical reasoning, interpersonal skills, performance skills and ethical reasoning. In the USA, occupational therapists wishing to become OT-CEs have access to an online self-assessment tool to determine their readiness to be an OT-CE [60].

1.2.3 Educational Philosophy for Occupational Therapy Clinical Education

All educational processes must adhere to an educational philosophy, which describes the values and beliefs that educators collectively support, and guide the practice of teaching and learning in all educational activities [25]. A number of traditional and contemporary philosophies have been described in the literature [25]. From a philosophical perspective occupational therapy has its roots in both naturalism and humanism [61, 62]. Thus the education philosophy that underpins the development of any occupational therapy curriculum must consider both the naturalistic and humanistic roots that are evident in the overall philosophy of the profession, as well as how OTSs learn and are best taught to become responsible and critical thinking professionals [62].

In 2000 Wilcock advocated that the profession should adopt an 'occupational philosophy' when educating OTSs. She describes this philosophy as being grounded in the concepts that students as '*humans are occupational beings'* and are *'engaged in the occupation of occupational therapy education'* which impact on the health and wellbeing of students [63]. She asserts that occupational therapy educators should also consider the education process through the 'occupational lens' so as to look beyond the educational content and techniques, and consider the 'occupations' of learning as well [63]. This she believed was essential to developing a new 'occupation-based' academic culture that

articulates with the professional paradigm shift described above. Wilcock further proposed that this academic culture was important for two reasons: firstly to develop educational programmes that are grounded in 'occupational philosophy', use an occupation-based taxonomy, engage in occupation-based research, and promote occupation-based practice [63]. Secondly, education is also an important occupation and students should not only be taught using best evidence from educational research, but students' individuality, educational backgrounds, learning styles and preferences should be considered when selecting and using methods of teaching and learning that develop professional knowledge, skill and identity [63].

The AOTA is the only occupational therapy professional organization that has clearly articulated an educational philosophy, which is published in their official journal. A number of versions have been adopted by their Representative Assembly, with the latest edition published in 2007 [64]. Much of what Ann Wilcock suggested has been included in this position statement, and it is quoted widely as the gold standard for an occupational therapy educational philosophy (See Appendix A: 1) [63]. The minimum standards of training of both WFOT and HPCSA ascribe to this educational philosophy, but it is not articulated as eloquently nor is it spelt out in detail in either of these documents [7, 29].

1.2.4 Curricula for the Education Programme for Occupational Therapy

Professional curricula are developed to embody the educational philosophy of each profession, just as the one described above for occupational therapy. The educational philosophy is intended to guide the development, implementation and evaluation of that curriculum, which details the range and nature of learning experiences for the students, and proposes the most efficient and effective teaching and learning methodologies to be used to achieve the specified and desired outcomes [25].

In South Africa, occupational therapy undergraduate education is offered at eight universities as a four year, full time, first professional pathway programme [25] as a National Qualification Framework (NQF) level 8 qualification [29, 65]. Each programme must be approved and registered with the South African Qualification Authority (SAQA) within the NQF according to the exit level outcomes and associated assessment criteria defined by the Occupational Therapy Standard Generating Body (SGB) [65]. Approved universities receive a government subsidy for such programmes that are offered as

either a Bachelor of Science (BSc OT) or as a Bachelor degree (BOT). These two options reflect the profession defining itself variously as both an art and science with roots in both the humanities and sciences [66]. While this has little influence on the exit level professional competencies the OTSs have to achieve, it has some implication for the way programmes are structured in terms of units that need to be attended, and also the level and nature of thinking which is expected of the students [67].

While it can be assumed that the nature of thinking that OTSs should possess is reflective of the degree type and each university's educational policy, not all units within an occupational therapy programme may be in line with the overall educational philosophy of the occupational therapy programme. Furthermore, while it would be desirable for all teaching and learning activities in an occupational therapy programme to be in line with the profession's educational philosophy, it is probably unrealistic to expect due to the way in which units are offered and structured within the occupational therapy programmes. Many units in the first, second and third years are out-sourced to 'subject expert' departments in the various faculties in the university that plan and deliver prescribed courses to OTSs, often together with students from other disciplines e.g. physiotherapy, nursing and pharmacy. These 'subject expert' departments each have their own educational philosophy and subject focus, resulting in teaching and learning that may be difficult to connect to the specific educational needs of the OTSs. Thus, the coherence of the total curriculum in terms of the educational philosophy is disrupted, and the occupational therapy educational philosophy often only applies to the profession-specific units(s) that may be included in a particular year.

In reality, an occupational therapy programme's overall curriculum may consist of horizontally and vertically presented units that have no coherent educational philosophy. Occupational therapy students are challenged to use a variety of learning strategies to identify and transfer important information from teaching and learning 'silos,' integrate these with professional theory, and apply it to the complexities of occupational therapy intervention. Students often have to do this independently, as lecturers are not entirely aware of what is being taught in other units, and strategies to facilitate transference of knowledge are not commonly or consciously used. Thus occupational therapy academic educators are challenged within the professional courses to use a teaching strategy that enables the students to make sense of seemingly disconnected knowledge and skill, and

to effectively apply the knowledge in practice without the need for re-teaching basic and fundamental concepts in already overcrowded curricula. This represents a gap in the knowledge–practice continuum because time, place and teaching methodology separate basic and clinical knowledge in the curriculum [68].

1.2.5 Curriculum Theories, Models and Approaches

Educational philosophy, as described above, informs the curriculum theories and models that are used in educational programmes [25].

Curriculum theories provide the rationale for the way in which educational competencies are developed and structured within an education programme, based on the understanding of how students learn. Two curriculum theories predominate in occupational therapy programmes. The first is experiential theory based on the work of Dewey, which proposes that professional knowledge and competencies are best learnt and developed through experience with real life clients and in real clinical settings [7]. The second critical curriculum theory is centred in the notion that occupational therapists need to learn to think critically to be effective clinicians. Occupational therapy is an action-oriented profession in which intervention is directed towards transforming the occupational performance of individuals, groups and communities, with and without disabilities, to promote meaningful and purposeful engagement in the occupation/activities required for successful living and thus promote improved health and wellbeing. This requires a complex set of critical thinking skills that are continuously used, often unconsciously, during the process of clinical reasoning [7].

The South African government, following the adoption of Outcomes Based Education (OBE) in 1995, has largely prescribed the curriculum model used in occupational therapy programmes. The purpose of OBE was to bring coherence to all education and training programmes offered by all sectors in the country. The goal was to ensure a clear understanding of what students know and can do with the knowledge, skills and values developed in all units within a programme. Outcomes Based Education ascribed to the belief that all students can learn and succeed and the responsibility for success lies with the teacher. The teacher is responsible for controlling the conditions for success by providing appropriate learning experiences and making the goals of all learning activities and the criteria for evaluation explicit to the students. The teacher is also responsible for

providing feedback to students that builds motivation and confidence, as well as providing remediation and enrichment. All learning experiences are geared to the exit level outcomes that must be clearly stated [69]. The exit level outcomes have to be described as core knowledge and skills, as well as what have been termed 'critical cross field outcomes', which include general skills such as collaboration, problem solving and lifelong learning [69]. All programmes have to show evidence that their curriculum is structured to ensure that the exit level outcomes are achieved during an accreditation process. In the case of occupational therapy, the accreditation process is undertaken every five years by the HPCSA's Professional Board for occupational therapy, medical orthotics and prosthetics and art therapy that acts as the Education and Training Quality Assurance (ETQA) committee for the Council of Higher Education (CHE) a council of SAQA [65]. In spite of the educational concerns, criticisms and changes to the OBE approach that have been implemented in the primary education level, the structure and principles of OBE remain in place for tertiary education at present [70].

The educational approach describes the manner in which education is delivered to students within an OBE Framework. The two educational approaches widely used in medical-related disciplines (which include occupational therapy) are the traditional approach and problem based learning.

Traditional education is based on empiricism, which considers humans to be 'empty vessels' that need to be filled with knowledge; consequently learning is predominantly inductive [71]. Students are given lectures by suitably qualified professionals who source and package the knowledge according to their understanding, experience and style, and deliver it to students who passively receive the information. As the teacher is assumed to be the expert, students are not encouraged to question the information or engage with knowledge. Often, due to the nature of the delivery, students are not able to grapple with the complexity or the discrepancies of opinion around concepts. This approach encourages students to rote-learn without understanding [72]. The emphasis on knowledge acquisition and the manner in which students are evaluated have led to some concern that students' retention ability was what was being evaluated rather their understanding and mastery of the knowledge. This would account for students not being able to recall information from one year to another, and not being able to transfer information from one unit to another. Traditional teaching has also been blamed for the

overcrowding of curricula [73], deficiencies in the acquisition of essential skills such as team work and critical thinking, and for practitioners having limited interest in CPD or 'lifelong learning'.

Problem based learning (PBL) is based on the tenet that knowledge is developed as a result of thinking. Knowledge development is thus the result of deduction. Knowledge cannot simply be transferred from one person to another, but has to be mastered because of cognitive processing on the part of the student [71]. Problem based learning is most widely used in medical education, and was popularized by Barrows and Tamblyn at McMaster University [74]. This approach is based on three core principles: learning is initiated by a 'problem', it is a comprehensive approach, and it is student-centred. It is rooted in cognitive learning theory and uses six principles [75]. The six principles include: use of prior knowledge; consistency with the context in which the knowledge will be used; structuring of knowledge; elaboration of material in order to enhance remembering and; development of cues to enhance information retrieval; and finally, intrinsic motivation to learn [71, 76].

Problem based learning has been described as a philosophy, an approach and a strategy, depending on how it is used in the total curriculum [25]. Savins-Baden and Howell Major described two different models where PBL is the educational philosophy: the integrated model where problems follow one another sequentially but are linked across the boundaries of different disciplines and the complex model where all subjects in all years in an educational programme are integrated using PBL. Problem based learning has also been applied as an approach or a strategy when a hybrid model has been used, combining some PBL and some traditional teaching. Six hybrid models of PBL have been described: the single module approach; PBL on a shoe string; the funnel approach; the foundational approach; the two–strand approach and patchwork PBL[77]. The differences between these types relates to the number of modules within the programme that are taught using the PBL approach, the number of staff involved in the design and facilitation of problems, as well as the acceptance of PBL as a teaching and learning philosophy. The hybrid approach most consistent with that of the Wits OT programme is the two-strand approach where the foundation courses, taught by service departments, use the traditional learning approach but all aspects of the occupational therapy curriculum are taught using the PBL learning approach [74].

Given the resource demands of PBL programmes and the seemingly limited gains, there is much debate in the literature about the nature and value of PBL [75]. The debate about the benefits of PBL, particularly in the training of medical students, has revolved around disagreement about the nature and size of the benefits that should be expected, and what the tool for measuring the effect size should be [78-81].

1.2.6 Teaching Strategies within a Curriculum

Teaching strategies relate to the range of activities that are used to facilitate student learning. The nature and range of strategies used in a particular education programme are directed by the educational philosophy and curriculum design, which in turn are informed by educational theories, models and approaches [25].

Teaching strategies in an occupational therapy programme include strategies that enhance the learning of theory, and also those designed to facilitate the development of clinical skills that include professional behaviours, beliefs and attitudes. These are often difficult to articulate, are assumed and not explicit, and are referred to as the 'hidden curriculum' [82].

Learning activities that promote mastery of theoretical knowledge include problem-based tutorials, lectures, workshops, skills development laboratory sessions, seminars, demonstrations, discussion groups, projects, portfolios and assignments. Learning activities that encourage observation and development of clinical competencies are carried out during classroom and practical sessions in which the student is involved in learning of profession specific skills prior to client contact, as well as clinical education which is practical work involving the student in the whole or an aspect of the occupational therapy process [7]. Practical learning activities include inter alia observation of occupational performance of diverse groups of people, community profiling, wheelchair mobility and maintenance skills, learning and practise of therapeutic activities, and techniques such as managing therapy groups, neuro-facilitatory techniques, and splinting, to name only a few. Clinical education includes practising of clinical competencies in a clinical education or service learning site on 'real live' people, (individuals, groups or communities) [7], to identify those at risk and those with occupational dysfunctions, so as to promote health and wellbeing using occupation-

based interventions. The 1000 hours within the programme that are mandated by accrediting bodies are related to clinical education only, and do not include the practical classroom learning activities [7].

1.2.7 Clinical Education

Clinical education is a critical component of health professional education and is considered to be the key to influencing the quality and evolution of professional practice in the future [1, 83]. However, clinical education, in spite of its importance in many professional contexts, has not been well researched and there are relatively few publications on the subject [1, 84]. Thus, current knowledge of clinical education and clinical education practices does not have a sound theory base, nor is it supported by strong empirical evidence. It is, however, evident that clinical education is widely used in professional education, and professional groupings have their own interpretation of clinical education as a construct. The result is a variety of different overlapping definitions, purposes and methods of delivery, although all agree that clinical education is essential and complex in nature [85].

The terminology related to clinical education is imprecise, with a variety of terms being used interchangeably in the literature. Five key terms are frequently used: clinical education, clinical supervision, preceptorship, mentoring and coaching, with different professional groupings and countries favouring different terms to describe fundamentally similar activities.

Literature suggests that although each of these terms in the system of professional support is distinct, they have overlapping constructs and have evolved in different settings in parallel, rather than in an integrated manner [86, 87].

Thus in the interest of clarity each term is defined below so as to describe how each term fits into the broader concept of professional support that enables professional developments, well as the specific place of clinical education in this system:

Clinical education, also called practice education, relates to the clinical learning and experience of students (mainly undergraduate but may include postgraduates) to enable mastery of the defined knowledge, skills and attitudes as set out by a university for a

specific clinical educational experience, or by the national or international accrediting body. It is a time-limited partnership between a student and OT-CE where an educational relationship is critical to the educational process [1]. Clinical education was further described by Mc Allister (1997) as:

'*The teaching and learning process which is student-focused and may be student led, which occurs in the context of client care. It involves the translation of theory into the development of clinical knowledge and practical skills, with the incorporation of the affective domain needed for sensitive and ethical client care. Clinical education occurs in an environment supportive of the development of clinical reasoning, professional socialisation and lifelong learning'* [88 p2].

Although clinical education is the term that has been widely adopted and used in recent occupational therapy literature, Donna Costa, an American occupational therapist who has published widely on the subject, disagrees and advocates that 'clinical education' is in fact 'clinical supervision'. She justifies this by stating that clinical education, like clinical supervision, includes the same three key elements: administration, evaluation and support, and therefore believes that the two concepts are not fundamentally different [1]. She views clinical education (supervision) of students as a '*blend of teaching, counselling, evaluating and consultation, but it is distinct from all of them'* [1 p2].

Clinical supervision is also termed professional supervision, and occurs within a relationship between qualified professionals, but does not include line management such as controlling standards, competency and efficiency, or personal therapy or counselling [89]. Although many definitions of clinical supervision exist, few are widely accepted. However there is some agreement that the core components of clinical supervision are: a supportive, regular, self-initiated, time-protected opportunity to learn to be a reflective practitioner, and to discuss and vent emotions about difficult work situations without comeback. Some definitions emphasise client safety and consumer protection, while others emphasise the CPD aspects [49, 51].

Preceptorship is widely used in the nursing and pharmacy professions to describe the role played by an identified and experienced practitioner who provides transitional support for an undergraduate student, for graduates who are working towards being licensed, or for a new employee in an organisation [90, 91].

Mentoring is defined as the process whereby a mentee elects or is assigned another esteemed professional/role-model who '*provides an enabling relationship that facilitates another's growth and development. The relationship is dynamic, reciprocal and can be emotionally intense. Within such a relationship the mentor assists the career development and guides the mentee through the organisational, social and political networks'* [92 p187].

Coaching is a term that has recently gained popularity in occupational therapy literature. In 2007 coaching was recognised as an intervention approach by both the Canadian and Australian Associations of Occupational Therapy. Coaching within occupational therapy education is defined as a '*partnering with a student in a thought provoking and creative process that inspires them to maximise their personal and professional potential'* [93 p1].

While there are significant similarities between these terms, the main differences relate to the relative focus on the dimensions of '**ensuring**', which relates to getting the job done efficiently, effectively and safely, and '**enabling**', which relates to learning from experiences and developing personal and professional competencies over time [92]. In Appendix A:2 a table describes the similarities and differences between these concepts and their use. Although all are professional development strategies, each concept embodies elements that may be pertinent to the clinical education of OTSs however over time each concept has a role in the professional career development of all occupational therapists. Ideally, the formal organisation of each of these constructs into a professional support structure for all practising occupational therapists in South Africa would be desirable, as it exists in other parts of the developed world [50, 51]. If South African OT-CEs felt more supported by such a structure, the clinical education provided to students as well as the service to clients could be enhanced. (See Appendix A: 3 for an outline of such a professional support system).

Clinical supervision as described above is not common in the occupational therapy profession in South Africa. There is no structure that allows for this in either the public or private sectors, and any clinical supervision that occurs is informal and at the discretion of heads of occupational therapy departments. Although occupational therapy staff all have a line manager to whom they report and are accountable, the purpose of this is

managerial and associated with the key functions of service management such as planning, organizing, guiding and controlling. In some cases, the line manager is not an occupational therapist and therefore cannot provide profession-specific support or career development.

The use of preceptors is more common in larger organizations where staffing numbers permit, although generally this practice is not named as such. In situations where occupational therapists work single-handedly another professional may act as preceptor. However, in many situations where there have been no previous occupational therapy services, where a post has been vacant for a long time or there is no hand over of any kind, it is left for a new staff member to re-establish the service from scratch.

Coaching as a means of support in the occupational therapy profession is uncommon, although some department heads may use the principles of coaching as a leadership strategy or for specific professional skill development.

1.2.7.1 **The role players and their responsibilities in the clinical education process**

Clinical education is a partnership between various role players in the clinical education process [94]. The role players, each with a unique contribution to the clinical education process, are described below [87].

<u>The Student</u>

Increasing numbers of students with diverse educational backgrounds are registering for occupational therapy programmes in South Africa. Although the gender profile of students applying for occupational therapy programmes (both internationally and locally) has shown an increase in the number of males, the number remains relatively low [95].

For many students, occupational therapy is their first choice of professional degree, but for others it is the second or third choice, serving as a fall-back or platform for subsequent entry into a preferred professional degree programme such as medicine. This has implications for the enthusiasm and commitment with which they approach their clinical education [96].

The student is the consumer in the clinical educational process but is not a passive recipient. It is the students' responsibility to bring their classroom knowledge to the clinical setting, and actively engage with the occupational therapy process for a client to exploit their knowledge safely and ethically into appropriate occupation-based care. While it is useful to observe how qualified therapists engage in therapeutic interventions, the focus in clinical education is on the student personally engaging in the occupational therapy process. This occurs by completing assessments, using clinical reasoning in planning and executing interventions based on the theory and best evidence, and then critically reflecting on and evaluating its effectiveness. Authors have enumerated the following student attributes that impact on the clinical education process and influence the challenges associated with this process: the student's motivation, knowledge and conceptions, cognitive style and learning preference, personality, work habits and study methods, age and level of maturity, previous experience, perception of task and role, attitude to the clinical learning situation, commitment to and understanding of the profession, physical health, coping skills and mental health status [86, 97].

The On-Site Occupational Therapy Clinical Educator

The on-site OT-CE is the qualified occupational therapist tasked with providing the clinical education opportunities, and guiding the clinical learning of an OTS in a client care context. This role is critical to a student being able to transition theoretical knowledge into practise [1], and has important implications for the future of the profession [57].

The role of the on-site OT-CE has changed over time as clinical education has transformed from learning from the 'expert', as in the apprenticeship model of learning [1] to experiential hands–on learning as an extension of academic activities including reflection, critical thinking and conceptual learning in the context of practice. Thus the OT-CE has become a 'clinical practice teacher/facilitator' with multiple and complex roles which have changed as clinical education has become more student-cantered and individualised, according to the unique and differing requirements of various academic departments [87].

The AOTA has defined competencies for OT-CEs which are embodied in the five standards for continued professional competence (knowledge, clinical reasoning,

interpersonal skills, performance skills and ethical reasoning), which all translate into professional practice, education, supervision and administration competencies [60].

In the USA, United Kingdom (UK) and Australia there is a growing recognition that OT-CEs need training and formal and informal training, are either mandatory or highly recommended. In South Africa, as previously mentioned, there is no requirement other than the six months clinical experience recommended by the HPCSA [98]. The belief that qualified occupational therapists are automatically able to be successful OT-CEs has its roots in both the Hippocratic Oath and the apprenticeship model, which in the past was favoured as the clinical education model of choice in medicine as well as in the allied medical disciplines. This model proposed that more senior members of the profession were responsible for *'watching over and guiding'* novice practitioners, and had to act as '*gate keepers'* of the profession [1 (p.1)]. This belief is now under dispute as it is being increasingly recognized that the set of competencies and teaching strategies required of an OT-CE are different from those needed to be a competent therapist. This was highlighted by Higgs and McAllister who stated that:

'A great deal of the success of clinical education rests on the shoulders of the clinical educators, their own abilities and personal attributes, and the preparation and support that they receive. The lack of adequate preparation is a chronic problem in health sciences. As a result, clinical educators lack an explicit theoretical framework for their educational activities, myths about clinical education are pervasive, integration of academic and clinical curricula suffer, and there is a mismatch between the theory and practice of clinical education' [99 p.156].

The AOTA has recognized that one of the key characteristics of successful OT-CEs is for them to value education highly and for lifelong learning to be a personal professional goal. This characteristic is essential for the provision of learning opportunities for students to transition skills from the classroom into practice that is in keeping with advancing professional knowledge, theory and evidence [60]. Therefore on-site OT-CEs have been assigned a growing number of roles in addition to their clinical role which include:

Management

Management in this regard refers to the day-to-day clinical education process at the clinical education site. Brown and Kennedy-Jones propose that the management role is the overarching and key role that sets the context for all other OT-CE roles [100]. Who is assigned this management role varies in the different clinical education sites. This role may reside in the occupational therapy departmental manager in consultation with the clinical site administrators, or it may be delegated in full or partly to other members of the occupational therapy staff, who are sometimes very inexperienced.

The management component involves creating an optimal learning environment, including having an educational policy that defines the departmental philosophy towards education and all related activities. The role also involves negotiating the terms, conditions and responsibilities between the clinical education site and university OTD so the terms of reference are overt [100, 101]. Additionally, the management role proposes that educational resources are made available for clinical education, including appropriate staff to act as OT-CEs, and that they are given the time and training to do this effectively. Educational opportunities must be identified and made available, appropriate to the level and competencies that the OTSs need to develop, such as management of individuals or groups of clients with specific or generic problems, or specific needs such as a vocational assessments or home visits [100].

Management also demands the sourcing of sufficient resources to support the service delivery that students provide as part of their clinical education. In South Africa clinical education sites are often not well resourced, with some sites having to fundraise to provide consumables for the activities used in service delivery. While this teaches students entrepreneurial skills, cost containment strategies and to be creative with limited budgets, it can also limit learning and add to student education costs in that they feel obliged to supply activity resources to achieve good marks at some clinical sites. This is especially problematic for those with limited financial resources and those who live away from home and have limited access to everyday activity materials and tools.

Administration

Administration of the documentation and paperwork associated with clinical education varies according to the requirements of the academic institutions, as well as the level of

students involved in clinical education. This includes student schedules, monitoring of clinical hours and signing off of clinical logs, student competency reports and grades. Certification that the student is ready to enter the profession often adds to the administrative burden of a summative evaluation [102].

Orientation and ongoing monitoring of OTSs and their progress is an essential management task, as are planning and scheduling of formative and summative evaluation and feedback sessions. The management role requires the facilitation of effective communication between involved people and agencies to promote effective and efficient learning opportunities, as well as the avoidance and management of conflict. Finally, critical review of the strengths and weaknesses of the clinical education programme needs regular attention, and plans and procedures need to be appropriately adjusted [103].

Role-Modelling

Role-modelling is an inherent function and critical element of an OT-CE's role. Professional practises and behaviours that students see in real life and everyday practice are predictive of their future practice. Thus OT-CEs are challenged to display work ethics appropriate to the clinical setting in addition to demonstrating the professional knowledge, skills and behaviours appropriate to sound, ethical, reflective and evidence-based practice, and to make the clinical reasoning that guides practice overt to the students. Thus demonstrating good practice alone is insufficient; students require an explanation of the professional thinking, reasoning and decision making that go into clinical actions so as to make them overt [104, 105].

McAllister has identified six dimensions that assist OT-CEs in finding meaning and purpose in their role, contribute to avoiding undue stress in their dual roles, and prevent burn-out which has been reported as a significant problem [106] McAllister describes these dimensions as 'nested' as opposed to 'linear', as they develop cumulatively rather than sequentially [107]:

A sense of self as a professional and an OT-CE. This core dimension develops over time through reflection and involves the growth of self-awareness and self-knowledge as a person, a caring and responsive practitioner and OT-CE. It includes self-acceptance

and the development of a personal and professional identity that is dynamic, and open to influence through lifelong learning.

A sense of self in a relationship with others which demands being person orientated, perceiving and responding sensitively and appropriately to others' needs, feelings and sensitivities. This dimension develops continuously by reviewing and improving one's interpersonal skills and reality testing in a variety of interpersonal situations that may be both challenging and complex.

A sense of being an OT-CE requires valuing and understanding the dimensions of this role, its complexities and challenges and being intrinsically motivated to continue learning about the OT-CE role. Learning to manage the emotional aspects of clinical education and understanding the limits of responsibility are key elements.

A sense of agency as an OT-CE relates to personal causation: i.e. competence and efficacy with respect to the role. Developing, maintaining and evaluating clinical education in relation to professional and academic requirements are important aspects. This also includes doing what is good for the student as opposed to what is good for the OT-CE, anticipating students' reactions to feedback, and protecting their vulnerable self-esteem and professional identity.

Growth and development involves embarking on the pathway of development from novice to expert OT-CE, perfecting the skills for the role and avoiding excess stress and burnout and continuously striving towards reflecting on current ability as compared with achievement of excellence [108].

Teaching/instructing is the process that enables the student to learn components of the job by transitioning theory into practice. This does not require any didactic teaching or re-teaching of the theoretical information which the student has already mastered in the classroom (although OTSs often deny they have such information) but rather the use of techniques to lift the students' classroom- or previously-attained clinical knowledge, skill and professional behaviours into their consciousness so that it can be applied clinically.

As an observer and provider of feedback as suggested by Turney, Cairns, Eltis Hatton Towler and Wright an OT-CE may clarify a student's knowledge by using the techniques of presenting, questioning, problem solving and conferencing [109], while Cheetham and Chivers found that "*modelling, coaching, scaffolding, articulation, reflection and exploration*" are additional ways of achieving this [110 p.57]. The skill of being a good teacher/instructor is being aware when to use which technique, how to provide the necessary support to facilitate learning, and not to demean or negate the student's effort.

Giving students timely and critical feedback on clinical performance is essential to learning, but feedback is impossible unless time is dedicated to actively observing the student's clinical skills and behaviours, while at the same time protecting the client in potentially risky situations [1, 111].

Feedback provides students with an indication of actual competence relative to their perception of their skill. The feedback should indicate to the student those competencies that have been achieved, the level at which they have been achieved, and the skills and behaviours that need more work and attention [1].

Feedback may be written, verbal or assisted by an audio- or videotape (provided the necessary ethical clearance has been obtained). Feedback may be given to OTSs individually or in groups, either directly by the OT-CE, or generated from the students' own evaluation or from peers. The decision to use any of these procedures is dependent on the nature of the task and the evaluations, the resources a clinical site has available, the learning objectives, the learning style of the student, and the time that has been made available for the feedback, as well as the nature of the feedback[1].

Feedback to students should be specific as opposed to general, accurate and supported by irrefutable evidence, as objective as possible, focused on the behaviour and not the person. The feedback should be descriptive rather than evaluative, timely, usable and desired by the OTS in order to improve performance [112]. The OT-CE should always check the student's understanding of the feedback in order for it to be effective [111]. Feedback is likely to be most effective if it is a routine part of the reflection on clinical activities, and if it is initiated by the student. Negative or corrective feedback is best given in private.

The delivery of feedback is critical to the learning process and integrity of the student. It should, however, be delivered in a way that is sensitive to the student's self-esteem and development of professional identity. Positive and negative feedback should be balanced. The feedback most likely to be effective is that which begins and ends on a positive note, also called the 'sandwich approach' [112]. The feedback should be relevant and meaningful to students in the context of their learning, and should always allow for discussion, explanation and clarification. Due to the fact that students at best find feedback on their performance stressful and threatening, congruency between the verbal and non-verbal messages that are used in the delivery are important, as is the use of the student's name and 'I' as the first person when referring to the person giving feedback [111].

Assessing/evaluating as per the literature suggests that all observed and feedback sessions should be recorded in order to contribute to the formative and summative evaluation sessions. The OT-CE should detail the date and time of the observed session, the location of the observation and feedback, the nature of the educational activity, on which feedback was given, positive feedback given, as well as concerns and the recommendations made to the student. This is essential in cases where students challenge clinical education block outcomes, and occasionally for possible litigation purposes [1].

Assessment/evaluation of clinical performance in a clinical setting is complex. While clinical competencies and outcomes may be listed and defined by academic departments, how they are played out in the context of client care in different settings varies greatly. Often they are open to subjective interpretation and professional opinion, thus influencing their reliability.

Assessments/evaluations can be informal or more formal in nature. Informal assessments should be used continuously to assist students' learning by evaluating or helping them to reflect on and evaluate their clinical experience. There may also be discrete, more formal formative assessments, usually in the middle of a clinical experience, or summative assessment activities at the end. All reside in a defined competency cycle, with clearly specified competencies needed in order to advance to

the next level of professional development, or where the readiness of the student to enter practice is evaluated.

The assessment process involves selecting clients and a range of clinical activities. These must be relevant and important to the students' learning and appropriate to their level of education, so they are able to demonstrate their clinical knowledge and skill, rather than be assessed for their lack of competence. The OT-CE must be aware of the criteria for evaluation of students at different levels, and these must be strictly applied. All criteria being used in any evaluation must also be available to and made overt to the students.

Challenges in clinical assessment include the subjective nature of the assessments in spite of marking guidelines and rubrics, and the validity of assessments when each student is assessed treating a different client with varying problems of differing complexity [113]. It is advisable that more than one person (OT-CE as well as university academic tutor/ university clinical education tutor) should always conduct the summative assessments, so that the evaluation is fair and equitable between students at any one clinical site. The principle of the university educators participating in these summative evaluations at a number of clinical education sites is to try to ensure consistency between clinical sites as clinical training sites gain a reputation as to whether the OT-CEs mark strictly or leniently.

Counselling

Literature reports different views on the role of counselling within the clinical education process. Some authors believe that counselling is essential to the clinical education process, while others believe that it is outside the boundaries of clinical education, and any students with problems should be referred to an external expert [92]. These two positions probably relate to the lack of a precise definition of counselling in the context of clinical education, and the range of issues that are feasible to deal with within the clinical education process.

However, counselling is thought to be invaluable as a clinical education tool if it is viewed as the systematic approach to help a student deal with difficulties related to the transitioning of theoretical knowledge to client care, or to resolve a clinical problem that

is creating stress. The proviso is that the stressor/problem is handled within an enabling relationship and within professional boundaries that are clearly defined.

In counselling students it is important for OT-CEs to communicate with the university educators about any action that may be taken. The problem needs to be clearly defined and the OT-CEs must ensure they have insight into all components of the problem from the students' perspective and do not presume the issues. Furthermore, it is important to take a non-judgmental, respectful and empathetic stance and help the student formulate a concrete and manageable plan to deal with the problem(s), providing support to implement the plan, and at the same time recognise when the student should be referred for additional help [106]. Students with a personal and/or an emotional basis for their clinical problems should be referred to an appropriate university student support agency for intervention [114].

Researcher

The researcher role of the OT-CE was listed as an important role by Farmer and Famer and Mc Leod, Romanini and Cohn, but not by other authors. This would be an essential role for an OT-CE if clinical activities and education practises were to be validated and efficacy investigated. As previously noted, there is limited research in this field [115, 116].

1.2.7.2 University occupational therapy clinical educators

The university OT-CEs are qualified occupational therapists employed full time or part time by the university, within the academic OTD. They are responsible for the development of the total occupational therapy curriculum, and all classroom theoretical and practical teaching at a time when professional knowledge is increasing but teaching time is being limited by other academic pressures. In South Africa, unlike our USA and UK counterparts, university educators contribute to the clinical education process of students especially the junior students, and are ultimately responsible for the success of the clinical education programme [117].

In the context of this research, the Wits OT-CEs in addition to their theoretical and skills based teaching, are responsible for and undertake the clinical education of all junior students (2nd and 3rd years). They also oversee and monitor the clinical education of the final year students, particularly the formative and summative evaluation processes in

each of the clinical education blocks. This involves spending time with students at remote clinical sites, facilitating student learning of client assessments and interventions at the clinical sites and in clients' homes. They are also responsible for the clinical examinations at the end of each year of training, including the final exit level examinations.

The Clients

Although not usually invited to be part of the occupational therapy educational process, clients are the recipients of student interventions and as such may have an important role in the monitoring and evaluation of student performance [118]. Hendriksen and Ringsted suggest that 'clients as experts' can guide student learning through discourse about their experiences and demonstration of their capacities and limitations. This is believed to create a sense of realism and authenticity about the impact of therapeutic interventions, and improves client-centeredness [119, 120].

1.2.8 **Clinical Education Process**

There is some discrepancy in the reviewed literature between what is classified as the roles of the OT-CE as opposed to the clinical education process [1, 86]. However, most authors are in agreement that the process of clinical education involves the steps and procedures that an OT-CE can use to systematically assist OTS s to develop the internationally-, nationally- and university-prescribed clinical competencies over an extended period of time while involved in the occupational therapy process at a specific clinical site. Six different steps have been identified in the clinical education process, namely:

1.2.8.1 **Preparation**

This is part of the OT-CE's management function, as described above, and is an essential aspect in the development of a positive learning environment in which students feel welcome and anxiety levels are reduced [121]. Preparation functions need to be completed before, during and after a clinical education block.

1.2.8.2 **Orientation**

This includes orientation to the clinical training site and as well as the clinical and educational expectations, even though the OTSs may have had a briefing session prior to the clinical education block at the university.

It is stated that this should ideally take place in a number of sessions during the first week so as to allow the students to assimilate the information. The clinical education manager (the person who oversees all clinical education in a particular site), has been identified as the best person to schedule this orientation into the students' programme or designate a staff member to do this. The following issues have been identified as being important to include in the orientation:

- Discussion of the values, health beliefs and systems of the facility or institution, as well as the clients the facility serves.
- The key role players in client care, the professional hierarchy and reporting lines with respect to client care in each site should be made explicit to the students so that they have a clear understanding of the referral and reporting lines.
- Rules and expectations of the clinical site need to be explained including working times, dress requirements and any legal and ethical issues that the OTS needs to be aware of specific to the site.
- Students should be introduced to staff with whom they will be required to interact.
- Students should be made aware of resources that may or may not be used, and any administrative procedures associated with this.
- The professional theoretical knowledge and skills needed for the particular clinical education block need to be made overt so that OTSs are aware of the classroom knowledge and skills they are going to transition into practice.
- The outcomes and expectations for the current clinical education block need to be reviewed, and learning opportunities, feedback and evaluation sessions need to be made explicit so they can prepare for them [1, 100].
- The evaluation processes, assignments, time schedules, learning resources and opportunities related to the clinical education block need to be specified [122].
- Selecting learning activities
- Learning opportunities and activities need to be selected for OTSs in keeping with the prescribed university outcomes and in relation to the students' stated needs. These must be changed to provide OTSs with the just-right-challenge throughout the

clinical education block, aiming to accommodate the students' prior clinical knowledge and skill, and then helping them to transition knowledge and skills to be consistent with the clinical education block prescribed outcomes and in accordance with the students' stated clinical educational aims and objectives [100].

1.2.8.3 Feedback and evaluation

This has been reported as one of the core roles of an OT-CE and has been described above.

1.2.8.4 Termination of the clinical education block

At the end of any clinical education process it is important that the OT-CE, or ideally the clinical manager, has a termination/evaluation session with the OTSs. The termination should reflect on and review the clinical education that has taken place from the OTSs' perspective as well as that of the OT-CE, and give the OTSs closure on their experiences. It should include a review of successes, shortcomings, challenges, the OTSs' opinion of the clinical training site and suggestions for improvement. This may coincide with the evaluation process described as part of the managerial role of the OT-CE, or it may contribute to a more extensive evaluation. It is ideal to do this once the OTSs' marks have been finalised so that they do not feel that they will be penalised for negative assessments. This openness to criticism from OTSs is essential for educational evaluation, accountability and quality control [123].

1.2.9 Learning and Clinical Education Contracts

Many authors have proposed that a learning contract be negotiated between the OT-CE and the student to assist the clinical learning process. This is a written signed agreement rather than a legal document [1] which may be used with all OTSs or only in cases where remediation is needed [1]. Learning contracts have been advocated as they allow OTSs to negotiate their own learning objectives over which they have some control, and which are in keeping with their personal needs and interests, but consistent with the prescribed clinical education block outcomes and requirements. As such, they promote self-directed learning and make use of adult learning principles [124, 125].

However, learning to draw up a learning contract is an educational process in itself which takes time, and the OTS requires support on the part of the OT-CE for the

learning contract to be realistic and achievable. In order for OTSs to successfully use a learning contract to guide their clinical learning there needs to be a culture within the clinical education site that supports self-directed learning. Occupational therapy clinical educators must additionally have some understanding of the purpose and value of the contracts [126]. Ultimately the students need to be able to critically appraise their own learning to benefit fully from a learning contract.

Clinical education contracts, on the other hand, are more comprehensive than learning contracts, as they include the OT-CE roles and responsibilities, and aim to ensure that each role player understands and commits to the agreement. A clinical education contract similar to the learning contract can be negotiated between the OT-CE and OTS, and should include goals and objectives for both parties, criteria for measuring progress, clinical education activities and opportunities, feedback and evaluation.

1.2.10 **Models of Clinical Education**

Different models of clinical education have been described in the professional literature based on a number of perspectives: the theoretical orientation to clinical education, the process of clinical education, and finally, clinical education in relation to the number of students.

Although a variety of models have been described, there is little empirical evidence that any of these models support best practice. Joffee suggests that although models provide structure and procedural guidelines, no single model fits all situations [127]. The diversity of OTSs and their prior knowledge and skills should inform the decision as to which model is best used in what circumstances [123]. However, there is some evidence that OT-CEs have difficulty in adapting their approach when faced with student diversity [128].

1.2.10.1 **Theoretical models of clinical education**:

<u>No-Model Model</u>

This model of clinical education is widely used in the health professions. In the context of this model, qualified clinicians become OT-CEs by virtue of the fact that they are recognized professionals and are considered to be experienced in the professional field [1]. According to Campbell, clinicians have a tendency to supervise and educate in the

same way they were supervised and educated as they have no formal training in clinical education. As a result, the education process might be haphazard, with the OT-CE being considered the 'expert' and the student a passive empty vessel that needs to be filled [129]. Campbell describes three variations used by OT-CEs within this model: the 'mini–me approach' where the student is encouraged to imitate and emulate the clinician; the 'one-size–fits-all' approach where all students are treated similarly regardless of their individuality, diversity or capacity; and finally the 'student as client' approach where the clinical education process aims 'to make the student better' [130].

Two additional variations to the "No model model" pertinent to health science clinical education have been described: the apprenticeship model and the collaborative model of clinical education.

The Apprenticeship Model

Historically, this model was used to teach doctors and nurses. Young aspiring physicians worked under the experts, learning their professional skills through 'doing time' observing and learning professional competencies through role-modelling [1, 25]. When occupational therapy adopted the medical model, to some extent it also inherited the belief that professional skills were only learnt by 'doing time' under the guidance of an expert practitioner, preferably on a one-on-one basis.

Collaborative Model

This model is based on the theories of Vygotsky [131] who advocated that adults learnt best through social relationships in a social context in which students can learn in their own style using their preferred methodology, direct the pace and nature of learning and they are the learning resource for one another. Johnson and Johnson outlined five principles that support collaborative learning: positive independence; face–to-face interaction; individual accountability; co-operative skills and group processing. All are considered to be important clinical competencies in both occupational therapy and physiotherapy [57, 132-134].

1.2.10.2 **Psychodynamic models of clinical education**

Psychodynamic models propose that clinical competence is attained through personal growth through the emergence of self-awareness and self-understanding through

transference and counter-transference within the relationship between the student and the educator. These understandings are then applied to the clinical situation to enhance the therapeutic process [135].

This model of clinical education is based on the work of Freud and Carl Rogers [1]. While this type of education model is used in the clinical education of social work and psychology students, it is not widely used in occupational therapy clinical education [136, 137].

The psychotherapeutic nature of this type of clinical education has led to some debate as to whether this practice is desirable in the context of undergraduate education. In some definitions it has been specifically excluded, and the choice of the term 'clinical education' over 'clinical supervision' has been influenced by this [48].

1.2.10.3 **Cognitive–behavioural models of clinical education**

The cognitive-behavioural model of clinical education proposes that students learn professional competencies primarily through role-modelling and coaching [1, 93]. Thus the learning process employs the specific principles and techniques of the cognitive-behavioural theories to promote desired professional behaviour which is described as consisting of defined actions which demand certain professional skills, and discourage that which is considered unprofessional.

1.2.10.4 **Developmental models of clinical education**

The developmental models of clinical education are widely used in occupational therapy, especially in the USA. These models propose that professional learning follows an incremental pattern over time and with experience. Although professional learning is specific to certain situations, it is also believed to be cumulative in terms of overall experience, and that all clinical learning contributes to the end goal.

Five developmental models are described in the literature:

Integrated model of development

This is based on the work of Stoltenberg and describes three levels of professional development, each with three stages of growth: self-awareness, motivation and finally autonomy [138].

Level 1 is where students have limited knowledge and experience and are dependent on others to perform.

Level 2 is where the student starts to imitate what their OT-CE does, and

Level 3 is where the students develop autonomy, trust their own clinical judgements, and can identify their strengths and weaknesses.

Development as a therapist model

This model is based on the work of Ronnestad and Skovholt [139] and describes six phases of development and fourteen themes [1]. The phases that have been delineated are commonly used in occupational therapy educational literature and research.

Phase 1: **Potential student** describes the knowledge, understanding and beliefs prior to entry into an occupational therapy programme. This is based on the experience of volunteering, researching the profession and observations.

Phase 2: **Junior student** is beginning to engage with the theory and practice of the profession (In the context of this research would apply to the first and second year students).

Phase 3: **Senior student** has completed most of the theoretical component of the programme and has limited clinical experience, a minimum of 1000 hours on graduation (This would apply to the third and fourth year students at Wits).

Phase 4: **Novice** refers to the new graduate and the first few years of working. (This would be consistent with the community service occupational therapists in South Africa).

Phase 5: **Experienced professional**

Phase 6:.**Senior professional** has more than 20 years' experience.

The themes in which development occurs include: integration of professional identity; locus of control; reflection; commitment to learn; reliance on expertise; commitment to professional development and lifelong learning; mastery of professional anxiety; personal–professional life influences; the client as a source of influence; interpersonal

sources of influence; affective reaction to old and new members; appreciation of human vulnerability and view of who is the 'hero' in therapy [140].

While only the first four phases of this model are pertinent to the OTSs, the role played by clinicians in their professional development may impact on how they themselves act as OT-CEs in the future.

Model of Skill acquisition

This model was described by Benner to reinforce the idea that health professionals develop knowledge and skill over their professional career. This model was based on the Dreyfus Model of Skill Acquisition [141, 142].

Brenner described five levels of proficiency: novice, advanced beginner, competent, proficient and expert [142]. Only the first two levels relate to OTSs.

The novice: is student that has no or very limited clinical experience who are taught and use guidelines or rules to determine their actions as they cannot use any clinical reasoning to guide professional actions.

Advanced beginner: this is a student who with supervision can perform marginally acceptable professional acts but has difficulty seeing the 'big picture' and in using clinical reasoning and decision making to inform treatment priorities [142].

Model of clinical supervision and professional development

The model of clinical supervision and professional development described by Loganbill, Hardy and Delworth consist of three stages that systematically describe the students' view of their development [143].

Stage 1: **Stagnation** describes that OTSs are immobilised by insecurities. They do not know what to do but they have a false sense of coping despite an inability to grasp difficulties even if they are pointed out to them. They are often defensive and have a varying attitude to supervision/clinical education, from dependence to indifference and antagonism, which makes it difficult to give students the assistance they need to learn.

Stage 2: **Confusion** is characterised by inconsistency as they randomly try to find the right answer and do the right thing without logical process and thought.

Stage 3: **Integration** is where the OTS is able to conceptualise the complexities of the problem/situation and generate logical solutions based on theory and clinical

reasoning. Students appear to use the clinical education process effectively to facilitate their learning.

This model also identifies eight clinical education issues that need to be addressed for the OTSs to progress in their development i.e. level of competence, awareness of the emotional state of the OTS, purpose and direction of the clinical education, autonomy of the OTS, acknowledgement and accommodation of diversity, ethics of the situation, motivation of role players and state of professional identity [122, 144].

Schwartz's adaptation of Loevinger's ego state development

Schwartz reported that stages 3, 3/4 and 4 of Loevinger's model [145] could be applied to the clinical education of OTSs [144, 146, 147]. The three levels described are not dissimilar to the levels of action that were described by Vona du Toit in her Model of Creative Ability that is widely used by occupational therapists to guide practice in South Africa [148].

Level 3: **Conscientious Stage**. In this stage OTSs see the OT-CE as the expert; they want to know the rules and are eager to conform. Students are compliant, do not question the OT-CEs' wisdom and are often passive in the learning process.

Level 3/4: **Explorer Stage** is characterised by the OTSs demonstrating more confidence and starting to consider more possible solutions to clinical problems. They may challenge the OT-CE's suggestions, and the OT-CE may need to be more open, allowing the OTSs to try more options and reflect on the success of each option without punitive consequence.

Level 4: **Achiever Stage**. At this stage OTSs have mature cognitive skills and can deal with opposing viewpoints, can problem solve and make considered decisions. Students are often hypercritical of their performance and their critique of themselves unnecessarily harsh.

1.2.10.5 **Social-models**

These models of clinical education highlight the roles, responsibilities and competencies of the OT-CEs and emphasize that they are more than just occupational therapy clinicians who provide learning opportunities for students:

Discrimination model

This model is based on the work of Barnard and Goodyear [149] describes three roles that an OT-CE may use: teacher (to answer questions), consultant (explore alternatives) and counsellor (examines personal issues that may be interfering with the therapy) when assisting OTSs to achieve professional competence. The counselling role is very specific in trying to help the OTSs examine the therapeutic relationship with the client and how it impacts on the therapy process, rather than using the psychodynamic principles with respect to the OT-CE-OTS relationship described in the psycho-dynamic models above.

Double matrix model

The double matrix model, also known as the 'seven-eyed model of clinical education' was described by Hawkins and Schohet in 2000 [150]. This model emphasizes the role players in clinical education (the OTS, client and OT-CE), the micro and macro context in which the clinical education occurs and the inter-relationship between these components. The authors describe six 'modes' that the clinical education needs to take into account. The six modes include: the contents of the therapy session (what), the strategies and intervention provided (how), the student's internal processes (behaviour and clinical reasoning), OT-CE-OTS relationship, the clinical education process including the perceived relationship with the client, and finally the professional context in which the clinical education is taking place. The authors proposed that there are six factors which influence the nature and quality of the clinical education: the nature and work of the OT-CE, OT-CE's style of work, personality and learning style, professional identity and reflection, the cultural background of the OT-CE, and finally the nature of the clinical education relationship with the OTSs.

Situational Leadership Model

This model has been used in the clinical education of nurses. It is not a model that has been widely reported in the clinical education literature of OTSs, which is surprising as it is consistent with occupational therapy practice. This model developed by Hersey, Blanchard and Johnson [151] is used to motivate and encourage students to perform at their best and uses four different facilitation styles to do this, depending on the readiness of the student to perform including: telling/directing, selling/coaching, participating/supporting and finally delegating. The intention of using these facilitation

styles is to create what clinical occupational therapists refer to as the 'just right challenge' so that the task that needs to be mastered is approached by the student with the correct amount of support to facilitate positive engagement[152].

1.2.10.6 **Process models of clinical education**

These models propose the processes or procedures that take place during clinical education, although according to Nye there is not a lot of understanding of what these processes entail [153]. Two models have been described in the literature:

Supervision Cycle

Goldhammer, Anderson and Krajewski hypothesized that clinical education is a circular process with five distinct stages that occur sequentially [154]. The first stage is the pre-observational meeting where the OT-CE and the OTS initiate the clinical education relationship by negotiating terms of reference and boundaries, analyse the learning goals, and plan the educational process and learning opportunities needed to achieve these. The second stage is the observation of the OTSs' session where the OT-CE notes/evaluates the strengths and weaknesses of the OTSs' performance relative to the learning goals. In the next stage, the OT-CE analyses the data collected during the session and prepares a feedback strategy. The final stage, before the cycle begins again, is for the role players to analyse the feedback independently and plan the way forward.

This model outlines the main steps but it does not detail any specific factors that are based on the experience of the OT-CE. However it is assumed that the educational relationship is central to this process and OTS learning will be enhanced in an empathetic, trusting, humanistic and enabling relationship rather than an authoritative and punitive one [127, 155].

Cox's Clinical education model

This model was designed for medical education and includes two inter-related and interdependent cycles: an experiential and an explanatory cycle to support the notion that learning and professional practice are based on reflection and critical thinking, rather than just trial and error.

The first cycle in Cox's Model is experiential which includes the preparation prior to the cycle commencing. The first step within the cycle is the process of briefing prior to the clinical encounter, which is followed by a debriefing step. The explanatory cycle ideally follows immediately, with the educator facilitating the students' reflection in the clinical encounter, explication or justification, followed by an exploration of knowledge the students have used to support their explanation. This is then taken forward by the student to be used in the preparation of the next session [127, 156].

1.2.10.7 **Models of clinical education related to student numbers**

In the last decade, professional educators in all the allied health disciplines in the developed world have been increasingly concerned about the rise of student numbers and the escalating difficulty in finding sufficient clinical education sites and qualified professionals willing to undertake the clinical education [8, 57]. A number of models have been proposed to deal with the increase in numbers:

The first is the **one-on-one model** of clinical education, which is described as one educator to one student [157]. This is the model most widely used and favoured by clinical occupational therapists, but is also the model most under threat by staff shortages, workload demands and an increasing number of students [157, 158].

The second model is the **collaborative model** where one OT-CE is responsible for the clinical education of multiple students [159, 160]. This model is common in single-handed occupational therapy practices or where there is a shortage of occupational therapy staff. On the Wits teaching platform this is common at clinical education sites on the primary care platform where there is a single occupational therapist responsible for the clinical education of a number of OTSs completing their urban public health clinical education block.

The third model is where a **single student is supervised by multiple OT-CEs.** Here the student either does the clinical education block at multiple clinical sites (one in the morning and another in the afternoon, or on different days of the week in different sites or units).

The fourth model is the **multiple educators to multiple students' model**. In this model more than one student follows a clinical education programme described in model three. Thus multiple OT-CEs are responsible for multiple OTSs.

The fifth model is where OTSs are supervised by a **non-education-specific OT-CE** [161, 162] and the final model is **peer supervision** where the students are responsible for the supervision of one another or of more-junior students [163].

The merits and challenges of each of these models have been discussed by various authors. However a systematic review conducted in 2007 [164] found that the notion that any one model was superior to another was based on anecdotal, personal and historical perspectives and not on empirical evidence. The review concluded that there is no 'gold standard' with respect to a model for clinical education across the allied health disciplines [164]. The choice of model for clinical education therefore seems to be determined by factors such as personal preferences, institutional policy and/or staff availability to take responsibility for the clinical education of OTSs.

1.3 CONCLUSION

The purpose of this chapter was to review critical literature in order to provide a background to this study. Particularly a frame of reference was needed for 'hearing' the perspectives on clinical education by the different role players in the exploration of status of clinical education on the Wits clinical teaching platform, mindful of the historical and educational factors influencing clinical education in this context and at this time.

Thus, this chapter has reviewed the development of occupational therapy as a profession, as well as that of occupational therapy education as it has adapted to changing needs and developments over time. Specific emphasis has been placed on the clinical education component as this is the focus of this study.

To understand the complexity of the clinical component of the education of OTSs the following have been included, as clinical education is part of the whole education process and therefore has to comply with pedagogy of the programme: the educational philosophy on which all education is based; curriculum theories, approaches, models, and approaches, and teaching strategies that have been used.

The construct of clinical education has been defined, as well as other related terms that influence professional development. The clinical education role players and their respective responsibilities and functions have been discussed, as well as the clinical education process, and the different models of clinical education used during clinical education of OTSs and other allied health professionals.

All these constructs and descriptions of functions require consideration in the next chapter, which describes occupational therapy and the occupational therapy curriculum including the clinical curriculum, providing context for this research.

CHAPTER TWO

This chapter, additional to Chapter One, aims to provide background information for the study by contextualising the study. The chapter includes a brief overview of the development of occupational therapy in South Africa and at Wits in particular. This is followed by some specific information about the occupational therapy curriculum and especially the clinical curriculum which is embedded in this. The chapter concludes with a description of the challenges pertaining to clinical education that confronted the OTD and the OTSs, and led to the initiation of this research project.

2.1 OCCUPATIONAL THERAPY IN THE SOUTH AFRICA

Occupational therapy is a young and emerging profession in South Africa, relative to nursing and medicine [25, 39, 165].

In 2014 there were 4305 occupational therapists registered with the HPCSA with the greatest number residing in Gauteng (1509) [166, 167]. Of those registered 14.1% where African and 63% were white [167]. The majority work in the private sector providing services to the relatively small, more-affluent section of the population, with many of these professionals engaged in services for children with learning disabilities, but also offering disability management and medico-legal expertise. A smaller number of occupational therapists work in the public sector that services the larger, mainly indigent population. If one uses the membership of medical aid schemes as an indicator of the size of the private and public sectors, the populations are approximately 16% and 84% respectively.

In South Africa as mentioned in Chapter One eight universities train OTSs. However, relative to international universities the total output per year is small, yielding between 212 and 256 graduates in the past three years [168]. Since 2003 occupational therapy graduates, like medical doctors and graduates in other allied health professions, are required to complete one year of community service in a public sector health facility [169]. In recent years these community service clinicians have formed the backbone of public sector occupational therapy services in many parts of the country. Following the completion of community service, occupational therapists are registered as independent

practitioners with the HPCSA, which enables them to seek employment in any sector and field of practice.

As required by the HPCSA, all South African occupational therapy education programmes must equip novice practitioners with the skills to meet the occupation-based health and wellbeing needs of the country [98]. The greatest need lies in the larger public sector population at local, regional and national levels, and consequently educational programmes concentrate on the national burden of disease relative to the occupational therapy scope of practice. In addition, most of the clinical education takes place in public sector settings, which tend to be under resourced, underdeveloped with a rapid staff turnover, have relatively few senior staff, and provide services that are difficult to sustain.

2.2 OCCUPATIONAL THERAPY EDUCATION AT WITS

The University of the Witwatersrand was the first South African university to offer a professional programme in occupational therapy. The first students were admitted to a 3-year diploma course in 1943 [148, 170]. The course was structured in accordance with the minimum requirements of the British Association of Occupational Therapy, and was later adapted to comply with the first publication of the Minimum Standards of the Council of the World Federation in 1958. In 1971 the course was extended to four years and registered as a Bachelor of Science degree in Occupational Therapy (BSc OT), compliant with the first set of minimum standards prescribed by the Professional Board for Occupational Therapy of the South African Medical and Dental Council (SAMDC) [170].

The university OTD falls within the Faculty of Health Sciences and is clustered within the School of Therapeutic Sciences (STS) together with nursing education, physiotherapy, pharmacy and sports science.

2.2.1 Current Curriculum

The BSc OT (Witwatersrand) has a dynamic and innovative curriculum that was most recently accredited by the HPCSA in 2014. By virtue of this accreditation the department is also a WFOT approved Occupational Therapy School.

The degree is a first professional honours equivalent, is classified on the NQF at Level 8, and has 480 credits [4]. The degree is presented as a four-year, full time, student contact programme that is supported by a blended e-learning platform.

The curriculum consists of three inter-related components that underpin the development of occupational therapy theory and practice, namely basic sciences, applied sciences and occupational therapy. The basic sciences consist of the prescribed and prerequisite knowledge needed for the practice of occupational therapy, namely human biology, psychology, physical science, chemistry and sociology. The applied sciences include anatomy, anatomical pathology, physiology and relevant aspects of medicine, surgery, paediatrics and psychiatry. The final component includes the occupational therapy or professional subjects [29, 65].

In 1994 the occupational therapy component of the curriculum was revised to align with the Bill of Rights in the Constitution and the changes in the health system and health care delivery proposed by the first democratically elected government in South Africa [171]. The programme included aspects of health promotion such as the key elements of 'activities health' [172] as well as the 'occupational risk factors' coined by Wilcox [28]. There was also a far greater emphasis on prevention of occupational dysfunction that was envisioned to take place at the primary level of care. At the same time a new course 'major', Science of Occupation, was introduced into the programme to accommodate the move from a 'medical' approach to occupational therapy to more of an 'occupation-based' approach, which was fast becoming the international norm [15].

A two-strand hybrid problem-based teaching and learning strategy was introduced into the occupational therapy and occupational science courses at the time of this revision, and a set of exit level criteria were defined and registered with SAQA within the NQF (See Appendix B:1) [74]. The above-mentioned factors all determined the content that was taught, as well as the teaching and learning approach that was used.

Although the overall structure of the curriculum has remained unchanged since 1995, specific content as well as the horizontal and vertical integration have been evaluated, debated, updated and adjusted annually with all stakeholders. These discussions occur at an annual mid-year curriculum planning and review session, and aim to ensure that

the curriculum remains current and responsive to national and international professional developments, as well as to changes in the South African health and education sectors. At each curriculum planning and review session staff members reach consensus on the educational philosophy and approach for the undergraduate programme, and re-commit to the teaching strategy to ensure a uniform approach to the curriculum.

The curriculum details all teaching and learning activities, which systematically develop the students' professional knowledge, skill and behaviours towards achievement of the exit level outcomes. The exit level outcomes mark the end of the four years of education, and reflect the criteria for passing and graduating or failing and repeating units. All professional knowledge and skills are taught in the context of 'problems' and associated learning activities, and the resources used to support the teaching are current and reflect best practice. The e-learning platform lends additional support to the delivery of teaching throughout the programme.

The basic and applied science courses, which are standard for all students in the STS, are also reviewed regularly in the context of the School's Teaching, Learning and Quality Assurance (TLQA) committee as well as the Faculty's STS Undergraduate Committee.

2.2.2 Clinical Education within the BSc Occupational Therapy Curriculum

Clinical education is embedded in the curriculum and is considered an essential learning experience and not just a practice opportunity. Thus, the term clinical education is the preferred term over clinical work or clinical practice, as it better describes the nature of the student learning expected in the clinical context. Blocks of clinical education are linked to both the science of occupation and occupational therapy 'problems' from the first to the final year. Prescribed learning outcomes and the clinical requirements to achieve these outcomes for each clinical education block are related to the knowledge, skills and behaviours that are being taught. The clinical education is considered continuous and cumulative, increasing in complexity and time over the four years as per the minimum standards of the WFOT and HPCSA Professional Board for occupational therapy, medical orthotics and prosthetics and art therapy [7, 29].

In first year the clinical education focuses on understanding the occupational therapy process and professional role within the multidisciplinary team, while in the second year

the students learn how to assess and treat occupational dysfunction resulting from illness, disability or developmental delay and also due to contextual problems. The third year focuses on understanding the effects of client factors and performance skills on occupational performance, and how these should be evaluated and managed in relation to enabling occupational performance in all areas of life and across the developmental continuum [119].

The final year concentrates on the assessment and treatment of individuals and groups of clients with occupational performance dysfunction in a variety of settings representative of all fields of practice within the profession (physical, mental health, paediatrics and public health) and in service contexts representative of all levels of care.

The hours of clinical education increase from year to year [7, 29] from 8 hours in the first year, to 33 in the second, 187 in the third and 858 in the final year, totalling 1086 hours over the four years. Table 2.1 represents the clinical time in each block over the four years of study. To support the 'generalist' nature of the undergraduate programme, each student has at least one block of clinical education in all fields of practice. To allow for this, all the clinical education blocks are less than the nine weeks recommended by WFOT as the minimum standard [7].

Table 2.1: Clinical Education Blocks over the Four Years of Study

Year	Field	Number of Blocks	Duration
1st	May be allocated to any field of practice	1	8 hours over 2 weeks
2nd	Mental health	1	2 mornings for 2.5 weeks
	Physical practice	1	2 mornings for 2.5 weeks
	Public health	1	2 mornings for 2.5 weeks
3rd	Physical	2	4 mornings per week for 3 weeks
	Mental health	2	4 mornings per week for 3 weeks
	Public health	1	2 days
	Paediatrics	1	4 mornings per week for 3 weeks
4th	Physical	2 (one acute and one chronic)	5 and 4 full weeks respectively
	Mental health	2 (one acute and one chronic)	5 and 4 full weeks respectively
	Public health	2 (one urban and one rural)	4 and 3 full weeks respectively
	Paediatrics	1 block with children with cerebral palsy	4 weeks
		1 block with children with learning disabilities	3 hours (one afternoon) per week for 20 weeks

In 2014 the physical and mental health blocks were consolidated into one single block instead of two. While this decision limited the acute/chronic experience opportunities that the two blocks had allowed, it was hoped that the single block in these two fields of practice would allow OTSs more time to consolidate clinical competencies as well as reduce the number of clinical placements in a year.

The programme of clinical education activities within each block has been adapted to the local and national context [7] so that the clinical education component is appropriate for the unique South African health and wellness concerns. While it would be desirable for students to do more of their clinical education blocks in occupational therapy service sites on the primary care platform, at present this is not possible due to limited sites and OT-CEs working on the primary platform.

All students complete their clinical education under supervision. In the first year some students are supervised by a fourth year student with guidance from their OT-CE, but for the rest, students are supervised by a qualified occupational therapist [163]. In keeping with the minimum standards, students have more direct clinical education in the first three years of study. In the final year the clinical education is less direct, and in the public health block, students may work with an occupational therapist who is in attendance for only a few days each week although this is less than ideal.

As the academic OTD recognised the importance of using the students' clinical education to support the teaching and learning process, and appreciated the need for direct and more individual input, a strategic decision was taken in 2004 for the university staff to take responsibility for the clinical education of the students in years two and three. This decision was influenced by the increasing number of students, and the need to find new clinical training sites that were outside the existing Wits teaching platform but were easy to access from the campus for a few hours per day. These would be considered emerging sites e.g. old aged homes, care centres for mental health care users and a variety of non-profit organizations (NPOs) for disabled persons [1, 173]. Emerging clinical sites do not typically have occupational therapy services, so the university educators accepted the additional responsibility of developing occupational

therapy programmes at such sites to ensure appropriate and effective clinical experiences for the students.

The final year OTSs usually complete their clinical education in placements at sites on the existing clinical teaching platform (hospitals/clinics/community and at special schools) in Gauteng, but in keeping with Faculty policy, the clinical teaching platform has been expanded to include sites in the North West province (approximately 150-200 km from the campus). All OTSs have a rural clinical education opportunity which is completed at a number of district hospitals, with strong community outreach programmes in North West, Limpopo and Mpumalanga provinces (between approximately 350 and 600 km from the campus).

Students are typically assigned to a single OT-CE, but in some settings, an OT-CE may be responsible for more than one student. This typically occurs in clinical education sites at the primary care level. The university educators who have been responsible for the theoretical teaching, or sessional university-employed clinical education tutors visit all final year students twice per block to participate in the formative (mid-block) and summative (end of block) clinical evaluation processes. The university educators undertake additional teaching and remedial activities at the clinical sites if required, in addition to providing routine tutorials on Friday afternoons, personal consultations and mentoring for students.

All at-risk students are referred to academic tutors who are employed by the university on a sessional basis for additional educational support and assistance with learning strategies and clinical reasoning to facilitate students applying the theory to practice. They are not responsible for the clinical education of students. These academic tutors see OTSs after hours and usually on campus. Should students need additional educational or psychological or medical assistance, they are referred to the Faculty Office of Student Support. As can be seen from Figure 2.1 a number of different role players may be contributing to the clinical education of an OTS at any one time.

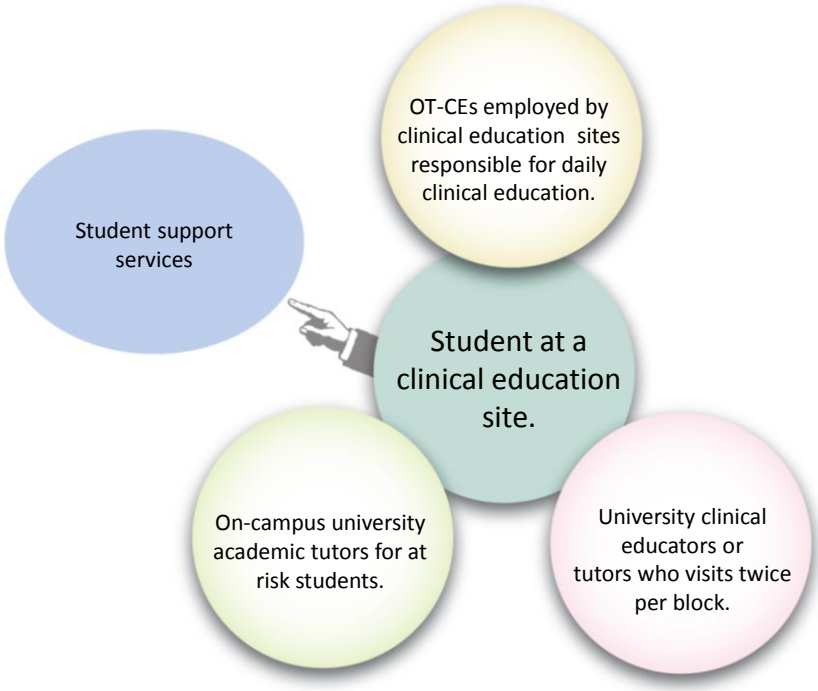


Figure 2.1: Support and Clinical Education Available to Students

In keeping with autonomy of the occupational therapy clinical education departments, the tenuous relationship between the university and such clinical departments, as well as the assumption that OT-CEs 'know how to provide clinical education', the university department gives no prescriptive guidelines as to how the clinical education should be organized and managed within a specific site although the clinical block outcomes must be met. This is assumed to be the responsibility of the department head or the person allocated to this responsibility within the clinical department. Unless there is an overt problem, or in the case of a new clinical education site, the university educators do not interfere.

At the end of each academic year the university educators inform the clinical education departments of the clinical timetable for the following year, and negotiate the number of 4th year OTSs that a clinical site can accommodate in any one block. The clinical department heads allocate OT-CEs as well as the specific programme for the OTSs at that site according to staff availability. The university assumes that the clinical education programme conforms to the required outcomes defined for that block and the specific clinical requirements, including the number of clients that each OTS has to treat, the

written work that needs to be done, the clinical evaluations, proposals as to when feedback should be given, and the criteria for passing and failing are all met. While the OT-CEs' roles and responsibilities are embedded in the students' requirements, they are not overtly stated as the university department is concerned that any prescriptive demands about clinical education may render that clinical site unavailable for students in the future. Thus, no model of clinical education is prescribed. Occupational therapy clinical educators prefer the one-on-one model of clinical education [157] where they are responsible for a single student. However, in some clinical settings, particularly in the community sites, the collaborative approach [160] is used with a single OT-CE responsible for as many as three or four students. In some hospitals, particularly the private hospitals, several OT-CEs will contribute to the clinical experience of a single student. Since most OT-CEs take on this role by virtue of the fact that they are qualified occupational therapists, the most common clinical education model used is the 'no model model' [164]. However, OT-CEs working in the mental health field sometimes use a more psychodynamic approach based on their clinical experience [135].

The university OTD presents workshops for the OT-CEs per year: two for the rural OT-CEs and three for the OT-CEs in close proximity to the campus. These workshops are used to brief both the OT-CEs and the OTSs about the forthcoming clinical education blocks (requirements, expectations and criteria for passing and failing), inform the clinicians about changes in the teaching content, and how to use the rubrics and evaluation forms the department has developed to try to standardise the student evaluation process. Although some sessions are used to help the clinical staff to deal with important issues related to clinical education, the information included has tended to be procedural (how to) rather than educational (why students do what they do). This is contrary to what was planned when the PBL teaching approach was introduced in 1995. At that time it was intended that all OT-CEs would be encouraged to attend a two day workshop within the Faculty to teach them how to extend the PBL teaching strategy into the clinical setting in order to consolidate and integrate teaching philosophy, approach and strategy in all teaching and learning activities. However the attendance at these workshops was problematic for a variety of reasons: OT-CEs had difficulty in obtaining permission to leave their workplaces to attend such workshops; work pressures prevented them from attending for this time period; or they felt it was not important for them to attend.

2.3 CHALLENGES THAT INITIATED THIS RESEARCH

As described above prior to 2015, each final year OTS completed eight clinical education blocks (average of 150 hours) during the course of the year, but since 2015 only six blocks are completed, however the total hours per OTS remains slightly over the prescribed minimum 1000 hours. Thus the on-site OT-CEs at the institutions through which the OTSs rotate take responsibility for the clinical education of between 38 and 45 final year students each year with some assistance from the university educators or sessional university clinical education tutors at the formative and summative evaluation sessions which comprise of the presentation of a case study and a treatment demonstration.

Over time clinical education sites have been limiting the number of OTSs they will each accommodate in year due to staff shortages and new service delivery priorities established by CEOs. These difficulties have often been ascribed to the inadequacy or lack of Memoranda of Understanding/Memorandum of Agreements (MOUs/MOAs) between the University and the Provinces. Although there are formal and signed agreements between the University and the Gauteng and North West Departments of Health that define academic co-operation, in practice these agreements have little impact in terms of hospitals and clinics committing clinical occupational therapists to participate in the clinical education process. There are also no memoranda of understanding with provincial health departments in which OTSs undertake the rural component of their clinical education (e.g. Limpopo and Mpumalanga Provinces) and while there has been consultation over many years, no formal documents have been signed.

The scope of practice of an occupational therapist also extends beyond the health sector, but again there is no memorandum of understanding with the Gauteng Education Department in whose facilities students also attend clinical education blocks (e.g. schools for learners with special educational needs [LSEN Schools]). Thus, the clinical education of OTSs in LSEN schools and the rural training sites is often dependent solely on the goodwill of the individual on-site OT-CEs or the local head of department. Sites are at liberty to accept students and limit the number they will accommodate, and

commitment to student clinical education is more an individual matter than an institutional requirement or obligation.

The increasing number of OTSs has also put pressure on the number of sites needed to ensure that all OTSs have the mandatory clinical experience. As a result, OTSs have to travel further from the campus to clinical sites, and to additional sites in other provinces. This has time and cost implications for the OTSs, university staff, and department in terms of travel and accommodation. For reasons already mentioned, the decision to place students at a particular site is based more often on who will accommodate the OTSs, rather than the quality of the clinical education they are likely to experience.

While the academic department is pressed to find an increasing number of clinical placements for OTSs, the department is cognisant of the problems in many of the public sector clinical education sites that impact on their willingness to accommodate students for blocks of clinical education. Staff and resource constraints are a serious issue. Inadequate budgets and long and complex human resource procedures at some sites often leave departments with vacant posts for long periods of time, while at others a rapid turnover of staff impacts on the development and maintenance of appropriate and relevant services, especially in the community. There is also a tendency for senior clinical staff to have very little client contact and limited involvement in the clinical education of OTSs, so the bulk of clinical education is in the hands of junior staff, often the newly qualified community service occupational therapists who themselves are struggling to develop expertise, professional identity and credibility. At the inception of this research many occupational therapists in the public sector had not benefited from the legislative Occupation Specific Dispensation enhancements and employment opportunities [174] in the same way as other health professions, and consequently felt undervalued. Overall, this is not an encouraging or supportive working environment, negatively impacting on productivity, staff retention, service delivery, and the development of effective role- models. Students are conscious of these issues and often report disturbing professional experiences as well as inadequate clinical education.

During the 2009 HPCSA accreditation of Wit's occupational therapy education programme, the final year students raised a number of concerns regarding the quality of their clinical education and their experiences in some of the clinical education sites. Due

to the nature of some of the issues that were relayed to the university OTD head, a survey was conducted amongst the final year OTSs to document their concerns. Although students recognized that there are some excellent OT-CEs who had contributed greatly to their learning, many raised concerns about the general quality of clinical education. They perceived that some experiences negatively influenced their learning of professional skills, and unduly raised their stress levels during clinical education blocks. Their concerns are listed below according to frequency:

Limited availability of the OT-CE and therefore a lack of clinical education opportunities - reported by 74%:

Although in many cases OTSs perceive OT-CEs as having many responsibilities and thus having limited time for their education, there are also clinicians who have time but do not contribute. Student anxiety is related to how they will learn if the OT-CE is unavailable, and also how their performance will be evaluated if the OT-CE is not around to see what they are doing.

OT-CEs having limited teaching and evaluation/assessment skills - reported by 67%:

The issues raised were a lack of understanding by the OT-CEs as to where the OTSs were in their educational process. Students perceive that OT-CEs have very little understanding of their inexperience and their need to learn and practise skills. Occupational therapy-CEs simply expected them to know, and practise as if they were experienced. The students reported that OT-CEs could not help translate the theory into practice; and there was inflexibility about new knowledge and therapy techniques and disregard for the importance of evidence-based practice. Students were concerned about when and how feedback was given, and an inconsistency between the feedback given and the marks that were allocated. There were major concerns about how they were evaluated, how marks were derived, and the fairness and consistency of the processes. A number of students felt that marks were related to the OT-CE's perception of them as individuals rather than the work they did, and there were also some negative gender and racial overtones to this. There were several reports that marks were used to punish and control the OTSs.

Negative attitudes towards the students - reported by 56%:

This included OT-CEs using OTSs to do the jobs they did not like to do and to treat clients that OT-CEs could not cope with or disliked, and insensitivity to student difficulties and clinical anxieties. There were also reports of OT-CEs telling the OTSs to forget what they had learnt in the classroom and do what they are told for day-to-day treatment of clients, but then OTSs being penalised when such practise was followed in the evaluation processes.

Lack of experience of the clinical educators -noted by 52%:

The students were concerned about the limited experience of many of the OT-CEs. Students felt that in some clinical settings there was nobody to learn from.

Lack of professionalism by the clinical educators was an issue for 50% of the group:

This included OT-CEs' attitudes to the profession, practicing outside of the 'scope', work ethic issues, out-of-date practice, poorly managed departments, and unprofessional behaviour.

2.4 NEED FOR A RESEARCH STUDY

This survey led resulted in much concern. The academic OTD was aware of and had been dealing with aspects of the problem for many years and putting in place ad hoc strategies to deal with isolated parts of the problem at specific clinical education sites. This was the first time that academic OTD had been confronted with the holistic nature and seriousness of the problem. It was therefore important to collect the evidence in an appropriate and scientific manner to confirm the problems and then examine the data critically to gain a comprehensive view of both the strengths and challenges of clinical education on the Wits teaching platform. Since the academic educators had been tasked through the concept of OBE to take responsibility for all aspects of the teaching and control the conditions for success a solution to the problem(s) should be explored, implemented and its success tested.

Thus the overall purpose of the research should be to:

Firstly confirm the problems described by the students and determine the challenges and facilitators of clinical education on the Wits occupational therapy teaching platform and the factors affecting the quality of clinical education.

Secondly to explore, implement and evaluate a practical solution to the problem that was efficient, and cost effective that the Wits OTD could implement within their resources and capacity.

2.5 CONCLUSION

This chapter concludes the background to the study and identifies the problems that OTSs encounter in their clinical education in different sites on the Wits clinical teaching platform. As custodians of the quality of all education in this occupational therapy programme the academic OTD was obligated to investigate and plan strategies to address the problems to ensure quality education for our OTSs. To do this effectively required a formal and properly conceived research plan and strategy.

CHAPTER THREE

3. RESEARCH METHOD

The need for this research endeavour, as explained in the previous chapter, resulted from a survey conducted with the final year OTSs following concerns about their clinical education as raised with the HPCSA inspectors in 2009 during their routine accreditation of the Wits occupational therapy programme. The nature and severity of the challenges, described in 2.3, necessitated this research project. This chapter describes the overarching research method that was used to plan this study. However, the specific details of the population, sampling method, measurement tools, research procedure and data analysis for each of the eight studies that contributed to this research project are described in detail in Chapters 4 to 7.

3.1 PROBLEM STATEMENT

As described in Chapter Two this research arose from the need and obligation of the Wits academic OTD to take steps to manage the quality of the clinical education experience of our OTSs as it contributed to OTSs achieving the required exit level outcomes for graduation, as well as laying the foundation for life-long professional learning.

Implicit in solving any problem is confirming the problem exists and then understanding and documenting the nature of the problem from the perspective of all the role players, the complexities of the context in which the problem occurs, as well as the impact the problem has on clinical teaching and learning, now and in the future.

Prior to this research initiative the concerns about the clinical education of OTSs were based on perceptions, hearsay and inconsistent student performance, as well as OT-CE and university educator or clinical tutor reports. Also, there was a concern that there was not a common understanding among the role players of what clinical education of OTSs implied: what it should ideally entail; what was clinically possible in the time frame; what the roles and responsibilities were; what constitutes appropriate clinical education and how this should be evaluated. The result was a tension around exactly what OTSs

were learning in the clinical context and whose responsibilities it was to teach and evaluate them.

While the academic OTD had no jurisdiction over service delivery in its clinical training sites, it did have a responsibility to understand the context and concerns of the both OT-CEs and OTSs in terms of the achievement of quality clinical education as well as the achievement of the required clinical competencies in the different sites on the teaching platform.

Thus, this research was an attempt to collect empirical evidence about the clinical education of OTSs in the context of professional practice so that the problems, if they existed, could be understood and solutions explored. This represented the first part of the study. Based on these understandings the intention was to introduce innovative interventions, including perhaps education and skill development for OT-CEs, to ensure that the clinical education OTSs received was fair, appropriate, effective and efficient within the context of service delivery. This represented the second part of the study, which would only undertaken if the outcome to the first part of the study confirmed that problems existed and the nature of the problem was evident.

3.2 RESEARCH QUESTIONS

Two overarching research questions were formulated to guide the two parts of this research:

Part 1: What were the factors that impact on quality clinical education of OTSs on the Wits teaching platform?

If required, Part 2: Would clinical occupational therapists responsible for the clinical education of OTSs in a variety of clinical education sites on the Wits teaching platform benefit if they were specifically trained as OT-CEs?

3.3 SUB –QUESTIONS AND OBJECTIVES OF THE STUDY

Due to the complexity and breadth of this research, sub questions and objectives were formulated to focus the two parts of the study that had been planned. These are recorded in Table 3.1

Table 3.1: Sub-questions and objectives of the research

RESEARCH SUB-QUESTIONS	OBJECTIVES
Part 1 What were the factors that impact on quality clinical education of OTSs on the Wits teaching platform?	
1) What did the role players perceive to be the factors that were facilitating and challenging quality clinical education of OTSs?	1a) Explore the collective understanding of the concept of clinical education. 1b) Explore the perceived status of current clinical education from the students', OT-CEs' and university educators' perspectives. 1c) Identify clinical education elements that needed urgent attention to improve the quality of clinical education.
2) Were the challenges to the quality of clinical education specific to the Wits teaching platform?	2a) Determine whether the challenges to the quality of clinical education were unique to Wits.
3) How were South African clinical occupational therapists equipped for and supported in their role as OT-CEs of OTSs, and did this training equip them sufficiently to cope with the challenges of clinical education?	3a) Determine the training that South African occupational therapists received during undergraduate education in clinical education. 3b) Determine the support given by line managers for clinical education. 3c) Examine any training in clinical education and support available to OT-CEs at their place of work.
Part 2 Would clinical occupational therapists responsible for the clinical education of OTSs in a variety of clinical education sites on the Wits teaching platform benefit if they were specifically trained as OT-CEs?	
4) What is the skill-set required for OT-CEs in the South African context?	4a) Describe the clinical education skill-set expected of a South African OT-CE in terms of knowledge, skills and attitudes in order to facilitate OTSs' professional learning.
5) Did a gap exist in the OT-CE skill-set among experienced and inexperienced OT-CEs working on the Wits teaching platform, and is additional training needed to enhance the quality of clinical education?	5a) Determine the current skill-set of OT-CEs on the Wits teaching platform. 5b) Determine the gap and the nature of additional training if required.
6) Dependent on the outcome of objective 5b the final question was: How effective was specifically designed OT-CE training programme in improving the quality of the clinical education to OTSs on the Wits teaching platform?	6a) Develop an appropriate intervention to improve the OT-CE's 'skill-set' and competencies if needed based on the identified gap. 6b) Deliver the intervention and measure its impact on the clinical education of OTSs. 6c) Evaluate the training programme based on the feedback of OT-CE participants and OTSs who received clinical education for the trained OT-CEs

3.4 PURPOSE OF THIS STUDY

The purpose of this study was two-fold. Firstly to confirm the existence of the reported problems and document the factors perceived by the different role players to impact the quality of clinical education on the Wits teaching platform, as well as to examine the current training and support for OT-CEs. Secondly the purpose was to develop, implement and evaluate strategic and innovative strategies to ensure quality clinical education for OTSs within the complex world of service delivery, if such were required.

To fulfil the purpose of the research and answer the research questions effectively a broad-based and open-minded approach was needed to examine in depth the complex interplay between the occupational therapy work place, educational, professional, ethical and personal factors that impacted on the quality of clinical education in the clinical sites in which the Wits final year OTSs completed their 1000 hours of clinical education. In addition, the beliefs and values of therapists that impacted on their desire to contribute to the education of others needed exploration [175], as well as their clinical expertise and clinical education knowledge and skills. Over and above these factors, the expectations of the academic staff, the dynamic curriculum in a rapidly developing profession, the complexities of professional education of a diverse student body with varying levels of knowledge, motivation and ability also needed consideration.

3.5 OUTCOMES OF THE RESEARCH

The desired outcome of this research was to test the hypothesis that a gap in the knowledge and skill in clinical education between the experienced and inexperienced OT-CEs was a factor that negatively influenced the quality of clinical education of OTSs on the Wits clinical teaching platform.

If this was confirmed then the research aimed to develop and test an educational programme that was specifically designed to maximise the clinical education competencies of clinical OT-CEs responsible for the clinical education of fourth year OTSs on the Wits clinical training platform.

3.6 JUSTIFICATION

It was the responsibility of the university OTD to investigate and remedy any component of the occupational therapy education programme that was negatively affecting the

educational process, learning environment and/or progress and/or clinical competence of OTSs.

The university OTD was cognisant of the fact that clinical education of OTSs was probably more important in the development of professional competencies and identity than the teaching and learning activities in the classroom. It was for this reason that the quality assurance processes around clinical education were continuously on the university OTD's agenda. The quality of the occupational therapists that the Wits OTD produce is largely dependent on the quality of the clinical education that the students received in their final year, in which they completed most of their clinical education.

Challenges related to the theoretical curriculum as well as the structuring of clinical education blocks, clinical education outcomes and block requirements are the responsibility of the university OTD. The academic staff in collaboration with their OT-CE partners must apply their minds to the analysis and resolution of such problems. However, resolving clinical education problems within the clinical education sites have proved to be a complex matter. The current organisational structure, in which the academic department has no formal role in influencing the clinical education experience of the OTSs, has made quality assurance difficult. Although there were many excellent clinical education sites there were others where the clinical education was of concern. With the increase in student numbers every clinical education site is now critical and of importance to the overall clinical education programme. Significantly, over the last three or four years has been an increase in the number of problems concerning clinical education expressed by all role players. Academic staff have been called on more frequently to support OT-CEs, assist with clinical education activities such as marking of case reports, extra visits to provide OTSs with feedback, and be on-site to guide OTSs because local staff are not available. This has been time consuming and labour intensive, and has detracted from the other demands on academics' time.

Students have been increasingly vocal in expressing their concerns and been more explicit about inadequacies in the clinical education they have received. They have also called for more support and guidance from the academic staff as they felt that the OT-CEs did not always know how to facilitate learning. Many students experienced OT-CEs as being busy and unavailable, with insufficient time to facilitate their learning effectively.

They reported getting inconsistent feedback and information that contradicted what they have previously been taught, both clinically and as theory. Some OTSs have been so stressed by their clinical education experience that it has destroyed their confidence and made them question their future in the profession. The debriefing sessions that OTSs had in order to reflect on their growth and professional development often degenerated into a 'Pandora's box' of clinical education crises.

The processes that the university OTD had put in place to deal with the problems seemed to be effective for only a short while before the same or new issues appeared. To find long-term solutions to the issues around the clinical education, one needs empirical evidence as to the nature and extent of the problems, and this could only be accumulated through research.

3.7 RESEARCH DESIGN

Overall this research utilized a mixed methods approach using the 'theoretical lens' of the pragmatic worldview to identify, understand and explore the problems related to the clinical education of OTSs in the 'real world' of professional practice to answer the two research questions defined in 3.2 [176, 177]. The pragmatic world-view was selected as the philosophical framework to inform this study, as the challenges and facilitators that related to the quality of clinical education of OTSs were believed to be complex and multi-factorial [176]. Thus an understanding of the depth and breadth of the problem and the development of realistic solutions required more than the reductionist process of simply identifying the causes that affected the outcomes. This research did not plan to generate or verify theories, but to develop a time- and context-appropriate solution to a pressing educational problem [175, 176].

This pragmatic world-view allowed the researcher the freedom to use qualitative and quantitative research methodologies, to collect data in different ways and to use the strengths inherent in both methodologies so as to interrogate, verify, and understand the complex issues within the first research question which made up the Part 1 of this study. Figure 3.1 describes the delineation between Part 1 and 2 of the research and the research question the guided each part and research design to achieve this.

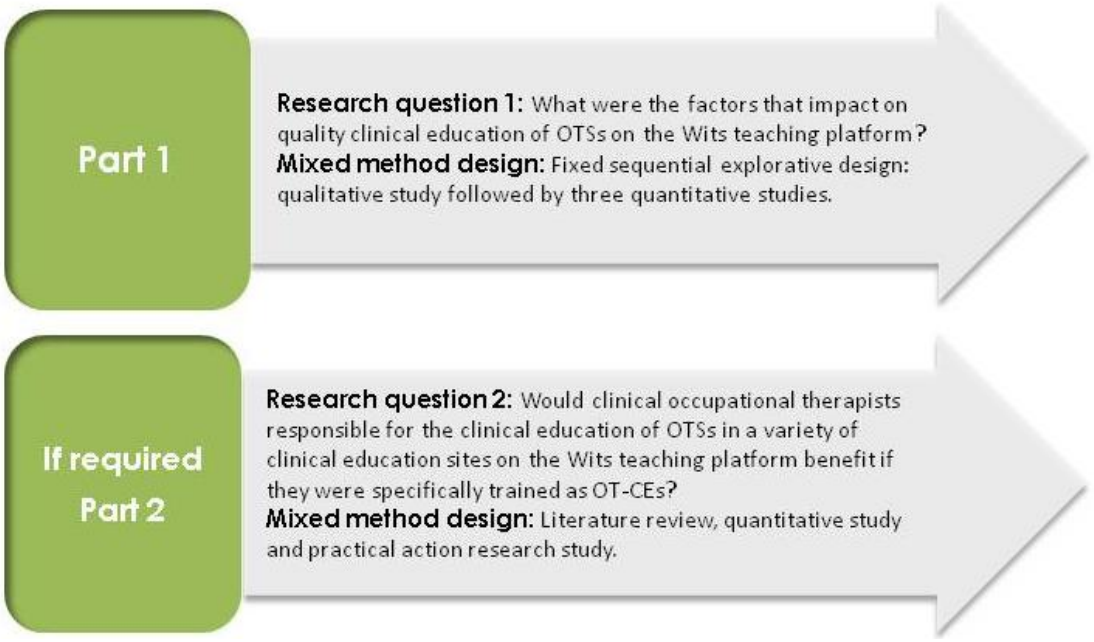


Figure 3.1: Flow Diagram of Parts 1 and 2 of the Research

As can be seen from Figure 3.1 within the mixed methods approach of Part 1 of the study a sequential exploratory design was used. A qualitative method was used first to explore the perceptions of the clinical education role players, as defined in the literature review, as to the factors that facilitated and challenged quality clinical education. The qualitative data were analysed using deductive reasoning. The results then informed the three quantitative studies that followed [176]. Quantitative data were analysed using inductive reasoning. The data set (Studies 1-4) of Part 1 of the study was then mixed through a process of embedding, and then collectively analysed using implicit theorising consistent with the pragmatic worldview [176]. The use of a mixed methods approach to collect data around the same construct (in this case the clinical education of OTSs) where both strands were considered to be equally important, enabled triangulation, which increased the validity of the data so as to explain its relevance to the research context.

If the result of the initial mixed methods study used in Part 1 identified that one of the challenges impacting on the quality of clinical education was that OT-CEs lacked sufficient educational expertise to facilitate quality clinical education, then Part 2 of the study would proceed as can be seen in Figure 3.1. Thus, if the hypothesis stated in the expected outcome of this research was found to be true, then an extensive literature

search would be undertaken to define the existing knowledge into the skill-set needed to be an OT-CE. A quantitative method would be used so as to examine whether a gap existed in the current knowledge and skills related to clinical education of the pool of experienced and inexperienced OT-CEs [178]. If this proved to be true then an appropriate solution was the design, implementation and evaluation of an appropriate training programme using a practical action research methodology [179, 180].

If the challenges were identified as being in other areas a more dynamic approach to the mixed method design would be taken to explore and describe alternative strategies to resolve the difficulties being experienced.

3.7.1 Part 1 of the Study

A sequential exploratory mixed method design was selected for Part 1 of the study. The research was divided into four sequential studies that were designed to answer the three sub-questions. The research methodology used in each study was informed by the sub-questions and objectives (See Table 3.1). Figure 3.2 gives an overview of the sequential explorative studies that have been designated as Studies 1 to 4.

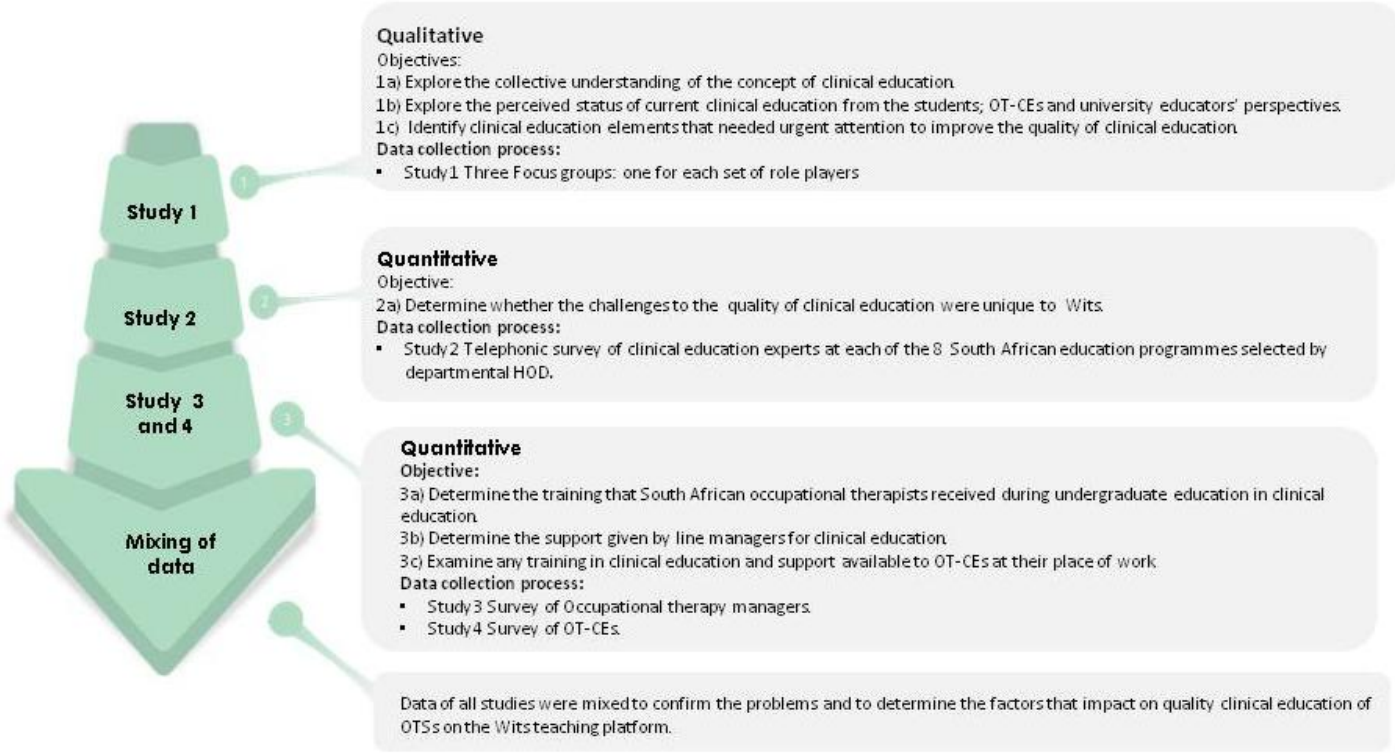


Figure 3.2: Flow Chart Recording the Studies in Part 1 of the Research

The qualitative aspect of the sequential exploratory mixed methods approach used descriptive phenomenology as the strategy of inquiry to describe and understand the 'lived experiences' of being within the 'lived space, the lived body, the social relationships and the lived time' [181 p.337] of those who provide clinical education as well as those who received it, in the real live context where the clinical education occurred [176].

The data were collected in focus groups because in contrast to key informant interviews, focus groups provided a social context for the participants in which to think, discuss, and give their opinion about the topic of 'clinical education'. While there is a view that phenomenology and focus groups are not methodologically compatible, other authors suggest that the focus group may well enhance the phenomenology approach through the shared experience which does not detract from the individual's lived experience but rather clarifies it [182, 183].

Focus groups included the three different role player groups, as identified by the literature review, (OTSs, OT-CEs and university staff) as sources of data to triangulate the information ensured the trustworthiness and credibility of the data.

In the quantitative aspect in the following three studies in Part 1 of the research a descriptive, quantitative survey design was used to collect data to describe the profile of OT-CEs, the education, training, knowledge and support they had for this role, as well as the support needed by OT-CEs with respect to the clinical education of final year OTSs [184]. This design was used as it was a cost effective, convenient and quick method of collecting data from a large number of OT-CEs in different parts of the country as the Wits clinical education platform extends over four provinces in the country [184].

A number of surveys were designed specific to this research, either to be completed as a self-report or in the context of semi-structured telephonic interviews. The purpose of these surveys was to describe what the current pool of OT-CEs knew about clinical education from their undergraduate training and their work experience, the support from occupational therapy department managers as well as from their association with the university education programme.

The data from this fixed sequential exploratory mixed method study were analysed and then mixed to determine if lack of knowledge and skill in clinical education was one of the factors that impacted on quality of clinical education and supported the hypothesis that had been determined for the research. If the data supported the hypothesis then Part 2 of the research would follow.

3.7.2 **Part 2 of the Study**

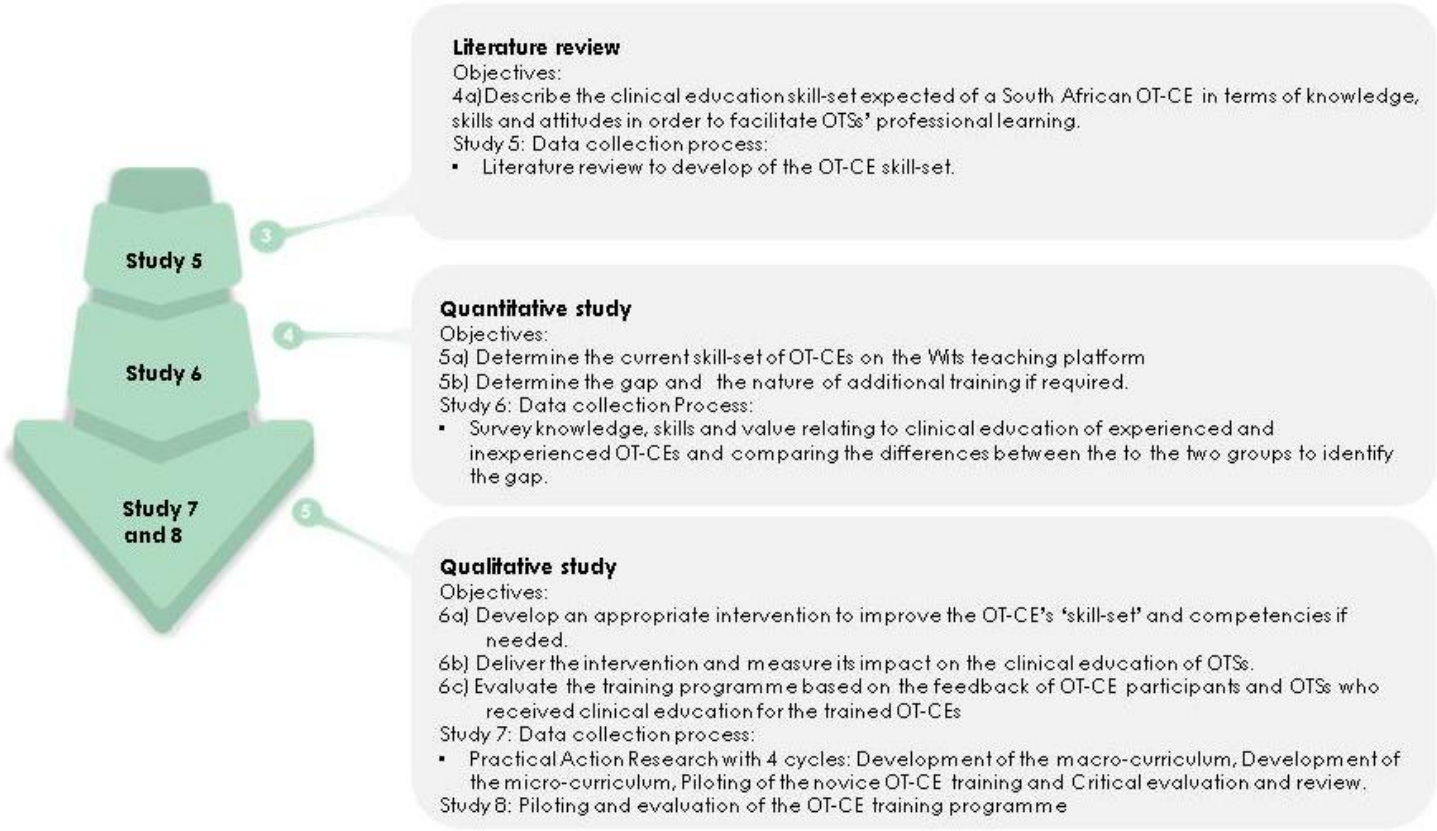


Figure 3.3: Flow Chart Recording the Studies in Part 2 of the Research

The studies in this part of the research are set out in Figure 3.3. See Table 3.1 for the research sub-questions and objectives for Part 2 of the study.

The first study (Study 5) in Part 2 included an extensive national and international literature review to explore the current knowledge on values, knowledge and skills needed to be a OT-CE. A skill-set framework was used to determine the competencies needed to be an effective OT-CE.

The OT-CE skill-set was used to design a questionnaire that would be completed by all OT-CE on the Wits teaching platform. Quantitative research (Study 6) was used to determine the differences in clinical education values, knowledge and skill between novice and experienced OT-CEs. This quantitative data was used to determine the 'theoretical knowledge and skills gap'. The 'theoretical gap' would be considered in relation to all other data collected throughout the study. If a 'theoretical gap' was identified a qualitative transformative design of practical action would be used to develop a curriculum for an OT-CE clinical education training programme [179, 180]. The programme will then implement and its effectiveness evaluated (Study 7 and 8).

The specific details of each of the eight studies will be described as they are reported in subsequent chapters in this thesis.

3.8 RESEARCH ASSISTANT

A research assistant was used in Study 1, in the focus groups, and Study 7, in the implementation of the OT-CE training programme. The research assistant was an occupational therapist who was experienced and had expertise in group work, education and research. As she worked in another province she was unfamiliar with the participants in both these studies. Her role in the research was supportive. In the focus groups she recorded the discussion on a socio-gram and checked and confirmed the themes from the transcripts. In the OT-CE training programme she organised the completion of the pre- and post-training questionnaires by participants and assisted the researcher to manage the small group activities and recorded key aspects of the discussions for later consideration during the evaluation cycle.

3.9 ETHICAL CONSIDERATIONS

The protocol for this study was approved by the Faculty of Health Sciences Graduate Studies Committee. (See Appendix C: 1). It was also approved by the Human Ethics Committee (Medical) and allocated a clearance number M10218. (See Appendix C: 2). The questionnaires for each of the studies using a survey methodology were sent to a designated member of the ethics committee for approval. Approval was granted for each questionnaire under the ethics clearance number recorded above.

Permission was granted from Gauteng departments of education, and health for occupational therapists to participate in the study (See Appendix C: 3).

The Assistant Directors of Support Services in Gauteng health and education and heads of the occupational therapy departments granted permission for clinical occupational therapists to participate in the training programme in Study 1, 3 and 5. Permission for the OTSs to participate in the focus group in Study 1 and complete the questionnaire in Study 5 was approved by the Dean of the Faculty of Health Sciences (See Appendix C: 4).

All eligible subjects were invited to participate in different studies described above. They were given the approved information sheet for each of the studies, which outlined the purpose of the research, the nature of their particular involvement, and the time commitment that was required. The researcher always explained that participation was entirely voluntary and that participants could withdraw at any point without consequence. Completion of the survey/questionnaires was taken as consent, but participants in the focus groups were required to consent to participate and permission was obtained for the group to be audio-taped.

Confidentiality of participants in the surveys was assured as no identifying information was on the survey forms /questionnaires. All surveys were returned to the departmental secretary who was otherwise not involved in the research and removed any identifying information before passing the surveys on to the researcher. Each returned survey was identified by a numerical code that was inserted when the form was returned.

Due to the nature of the focus groups it was not possible to ensure absolute confidentiality in respect of identity or contribution to the focus group. In the transcriptions the participants were labelled as clinician 1, 2 or 3, student 1, 2 or 3 and staff member 1, 2 or 3 depending on the focus group in which they were involved. The same labelling was used in the write-up of the research. Every precaution was taken to prevent linking of the numerical codes to individual names.
Recordings of the focus groups have only been used for the purposes of this study, and as required by the HPCSA will be kept in a secure location for two years after the research has been completed if the research is published and six years if it is not.

3.10 CONCLUSION

This chapter described the overall research methodology used in this study. The research process was divided into two distinct parts:

Part 1, to answer the first research question: What were the factors that impact on quality clinical education of OTSs on the Wits teaching platform?
A brief overview was given of the four studies included in this part.
Based on the outcome of Part1, Part 2 of the study was executed. A brief overview was given of the four studies included in this part.

The subsequent chapters detail the research process of each of the eight studies included in the research. Chapters Four and Five describe the four studies included in Part 1, and Chapters Six and Seven the four studies in Part 2. Each individual study has been introduced with a brief literature review, followed by a detailed description of the research design, the population and the sampling method, the data collection tools and procedures followed by ethical procedures and a description of how the data were analysed. The results and a discussion of the results conclude each study, together with an explanation of how the results informed the subsequent studies.

CHAPTER FOUR

4. PERCEPTIONS OF THE QUALITY OF CLINICAL EDUCATION

4.1 INTRODUCTION

As described in Chapter Three, Part 1 of the research used a fixed sequential exploratory mixed method design. Consistent with this type of design the first study was qualitative [185]. This qualitative study explored the research question: What are the factors that impact on quality clinical education of OTSs on the Wits teaching platform? For clarity this qualitative study has been named Study 1.

The objectives of Study 1 were to:

- Explore the collective understanding of clinical education.
- Explore the perceived status of current clinical education from the OTSs' and OT-CEs and university educators' perspectives.
- Identify clinical education elements that need urgent attention to improve the quality of clinical education.

The flow diagram in Figure 4.1 depicts the components of Study 1.



Figure 4.1: Components of Study 1

4.2 RESEARCH METHOD

Study 1 used a qualitative method of inquiry with phenomenology [186] as the strategy to explore, examine and understand the discussions around the participants' conscious 'lived experiences' [181] of clinical education within the complex world of occupational therapy practice by those who gave clinical education as well as those who received it [176, 186, 187]. This study was intended to explore the insights, meanings, concerns, beliefs and values of each group of participants with respect to clinical education as well as the factors that influence the quality [188]. This research attempted to interrogate and describe what 'clinical education is' and what 'clinical education is really like' [186] by collecting the opinions of those who have 'been there' and 'experienced it'.

Descriptive phenomenology was selected as it has been used in other research to understand teaching and learning challenges by examining the experiences of those involved [189]. Furthermore, this approach was selected as it enabled 'clinical education' as a phenomenon to be explored through the interpretation of conversations of those who have experienced clinical education in relation to the cultural, social and historical perspectives in the context in which it took place, and who are able to describe the reality of 'being in the clinical education world' [186].

The data were collected in focus groups. While focus groups are not the data collection tool of choice in phenomenology research, focus groups were selected because they provided a social context for the participants to contribute their understandings and 'lived experiences' of clinical education which is by nature a social phenomenon [190]. All participants belonged to pre-existing groups and collective views about the phenomena of clinical education were sought without being biased by a set of questions predetermined by the researcher [190]. Within the focus groups the conversations about the collective views about clinical education were generated and fashioned ideas and provided opportunities to reflect, gain new insights and sharpen perspectives [191]. Through verbalising their personal interpretations, experiences and reflections on different responsibilities and the way these had been carried out it was hoped to explore the ideas, understandings and value of what clinical education meant to the participants [186]. The discussions also provided opportunities to clarify perspectives of clinical education, its purpose and value as an educational experience [191]. The topic was focused and of interest to all participants. However, the purpose was not to gain

consensus, but for the participants to engage with others' experiences and viewpoints and perhaps provide contrasting views so as to contribute to the richness and thickness of the data [192]. Focus groups were also selected because the dynamic interaction between participants allowed for controversial views to be expressed, but at the same time to identify shared views [193, 194]. This methodology enabled the researcher to reflect on the conversation between participants within the focus groups, and gain insight into their past and current experiences that moulded their views as they 'experienced clinical education' rather than how it was conceptualised [186, 195].

This depth of investigation was required to understand each stakeholders' understanding of clinical education and the impact of clinical education on the development of the OTSs' knowledge, clinical skills, attitudes and professional behaviours, as well as the impact of the clinical education on the workload and professional development of the OT-CEs [194]. While an unstructured interview may have revealed the same information it may have taken much longer, as unstructured interviews are reported to be very time consuming [190]. In addition, focus groups were preferred over unstructured interviews to mitigate the professional position of the researcher which in a one-on–one interview may have influenced participants' ability to speak freely.

A focus group for each set of stakeholders was decided on rather than mixed groups of participants, to ensure that all participants felt comfortable and free to express their ideas and opinions [190, 192, 193].

The researcher, as an OT-CE in the context of her work, did not have to gain entry or negotiate an identity within the context in which the research took place [194]. Thus, the researcher had the necessary credibility to be undertaking this research [196].

4.3 POPULATION

The population for Study 1 referred to all stakeholders involved in the clinical education of the Wits 4th year OTSs. Thus the population included all the 2011 final year OTSs (n=32), all the site-based clinical staff involved in clinical education of these students (the exact number was unknown but estimated to be around 42), as well as all the university occupational therapy staff who are involved in the clinical education of students at the 4th year level (n=12).

4.4 STUDY SAMPLE

All participants were actively involved in the clinical education process either as students or educators. Three groups of eight participants were invited to participate in focus groups (n=8): a group of students, on-site OT-CEs, and finally university educators [192]. Literature suggested that a focus group should have between six to eight participants, but in the context of this research eight participants was the preferred number in order to easily accommodate the four predominant fields of practice in both the clinical and university staff groups [190]. The three groups were each selected somewhat differently and this is described below.

4.4.1 Students

There were 32 students in the final year occupational therapy class, two of whom were male. In terms of the ethical approval, the male students were excluded because they could easily be identified.

The researcher cut up a class list, removed the names of the two male students and the remaining names were placed in a sealed box. The departmental secretary drew out one name at a time, contacting that student, inviting her to participate. On agreement to participate a copy of the information sheet was emailed to each participant (See Appendix D:1). The process continued until eight students had agreed to participate. If a student withdrew an additional name was drawn following the same process. Thus, the students were purposive selected and not selected according to any predetermined criteria such as culture, educational history, academic or language ability. Therefore, all female students stood an equal chance of inclusion, although personal factors might have played a role in whether they accepted or rejected the invitation to participate.

4.4.2 On-Site Clinical Educators

Purposive and representative sampling was used to identify OT-CEs who worked in the different fields of occupational therapy practice and had experience of clinical education. This was done in an attempt to gain deep and rich data. In this case number of years of practice was not taken as a measure of experience of clinical education as it had been identified that community service OT-CEs working in sites on the primary clinical teaching platform dealt with more OTSs than OT-CEs who worked in hospitals and institution based clinical training sites.

The names of all 22 clinical education sites were listed and then colour coded according to the field of practice. These were also put in a sealed box. The departmental secretary drew out two clinical sites representative of each colour (field of practice). She contacted the head of each clinical site and invited them to volunteer or nominate a willing, experienced OT-CE from that site to participate in the study. This procedure was used as the head of department was in the best position to know which staff members met the criteria of experience in clinical education and field of practice. The clinical head was asked to forward the names and contact details of possible participants and the departmental secretary then forwarded them the information sheet (See Appendix D:2). If a site did not wish to participate or could not participate, she drew another site of the same colour. She continued this procedure until she had the names of eight OT-CEs.

4.4.3 **University Educators**

At the time of the study, there were twelve university staff (n=12) involved in the clinical education of the fourth year OTSs. Two were newly appointed and were excluded as they had worked in the OTD for less than 6 months. The names of the remaining ten were again colour coded as per the field of practice most predominant in their clinical teaching load as described above. Thus purposive and representative sampling was used to identify university educators who had experience and worked in the different fields of occupational therapy practice in an attempt to gain a cross section of experiences so as to enrich the data. Again, the secretary drew names one at a time and invited that person to participate. If those drawn were unwilling or unable to participate then she drew another name out of the box until eight names were on the list. Each participant was emailed the information sheet (See Appendix D: 2).

4.5 **DATA COLLECTION PROCESS**

All three focus groups were completed on two consecutive days. An hour-and-a-half had been negotiated with participants for each group and they were all made aware that further groups might be necessary if the data were not saturated.

The same venue was used for all three groups. The venue was a private, quiet, and comfortable meeting room in the university OTD, which was familiar and centrally located for all participants [197]. Participants selected their own place around the table.

Two sets of audio-taping equipment were used to record the focus groups, positioned diametrically opposite one another.

The researcher managed the focus groups and acted as moderator and was responsible for the facilitation of the groups. The researcher's role included encouraging contributions from and between participants, managing the group dynamics, probing to seek depth and detail of participants' perceptions and experiences, clarifying meanings, using a variety of group process techniques to open and focus the discussion, and finally, managing the duration and pace of the discussion [197-199].

The group process and group dynamics were recorded by a research assistant who acted as the recorder/note taker [193, 197]. She did not participate in the discussion in any way. She recorded the main flow of the verbal discussion, non-verbal communications and behaviour of each participant, as well as the group dynamics of each of the focus groups on a socio-gram to capture what was not stated overtly but 'said between the lines' p.6 [186, 193]. These were also summarised in field notes. The purpose of the observations recorded on the socio-gram and the field notes was to obtain a 'thick description' of the social setting and the behaviours of each participant in order to contribute to the later analysis of the data [197].

4.6 DATA COLLECTION PROCEDURE

Data were collected in focus groups which were managed using a standard format.

4.6.1 Group Protocol

Prior to the focus groups, a protocol was designed by the researcher based on the group-work literature and her professional group-work experience. The purpose of the protocol was to ensure that the format for each of the three focus groups was similar and that the group followed a logical process. The protocol was designed using the 'funnel design' described by Hennink, Hutter and Bailey, which included an introduction to provide cognition, opening statements and a warm-up to provide rapport and to help group members focus on the topic at hand, specific group-work activities to provide data, summary, and closing statements to provide closure and post discussion statements/ questions to provide information [197].

4.6.2 **Focus Groups**

Introduction

The introduction was used to welcome and thank the participants for agreeing to participate and giving up their time to do so. The research and the research assistant were introduced and their roles explained. Where the participants were not familiar with each other, they were asked to introduce themselves and say something about themselves.

The researcher then explained the background to the research: why it had been initiated, what had been done so far, the purpose of the focus group and how it would contribute to the overall research project.

Some ground rules or group norms were discussed as well as the focus group format and time frame [192]. Participants were invited to ask any questions that they had.

Also in the introduction, a number of activities were undertaken. The researcher ensured that all participants had read the approved information sheet (See Appendix D: 1, and 2) and confirmed that their participation was voluntary and that they could leave at any point. The student group was assured, as stipulated in the conditions of the ethical approval, that the researcher was on sabbatical leave and not able to influence their marks in any way. The participants were all made aware that absolute confidentiality could not be guaranteed but they were assured that no participant would be identified in the write-up and dissemination of the research findings. All participants were asked to sign the approved consent forms: one for participation and the second for the audio-taping (See Appendix D: 3 and D: 4) and complete the brief information sheet.

The participants were then asked to complete a brief biographical questionnaire. Each group completed a slightly different biographical questionnaire based on the group they represented (See Appendix D: 5, 6, and 7).

Warm-up

As a warm-up activity to focus the group, each participant was asked to take a few minutes and to write on a green piece of paper their understanding of the term ‘clinical education’ and place their paper in the middle of the table when they were finished.

These understandings were not discussed but were analysed to identify the core perceptions of the concept between the participants of the three groups.

Group Cohesion/ Bridging Activities

To develop rapport between the participants and to create some group cohesion the participants were asked to pair up with the person sitting next to them. Each dyad was asked to discuss their experiences of clinical education and to decide on two issues which in their opinion were the most important in influencing the quality of clinical education. The dyad was then asked to rank their issues and record the more important on a red card and the lesser important on a yellow card. These were placed in two piles in the centre of the table.

Group Discussion Activities

The researcher did not generate a list of questions to ask the group; the discussion revolved around the issues that had been identified as important by the group participants themselves. The red cards which identified the most important experience/issue influencing the quality of clinical education were discussed first and were dealt with in random order. Each participant took a turn to read out the issue, and all participants were invited to contribute their thoughts, ideas, experiences and beliefs on the issue. The researcher made it clear that the group did not have to agree or reach consensus on any issue, and that positive and negative experiences, views or perceptions were equally important. The purpose was to tease out each issue raised so as to gain deep and specific understanding thereof from each participant's perspective. Discussion was not limited to that issue only, and related and other issues were included at any time. This strategy was used so the researcher could not bias the issues that were raised by framing specific questions.

The discussion of all the yellow cards marked the end of the discussion stage of the group. The researcher then asked the participants if there were any other issues that they wished to discuss that had not been covered.

Throughout the group the researcher recorded the issues raised on a poster as a visual record of the topics raised in the group. The poster was used to clarify with the

participants that the wording captured the discussion. The poster was further used so that members could reflect on what had been discussed.

Closure

In the closure of the focus group, each participant was asked to take a blue card and record the two issues that had been discussed which they believed were the most important and which needed to be taken further. This was done so that each participant could state their personal opinion without being influenced by the other members of the group. These were not discussed in the focus group but reviewed during the analysis.
The researcher then reviewed the main points that had been discussed using the poster. This was done to confirm that participants agreed on what had been discussed. Statements were reformulated when necessary. The researcher then described what would happen to the data and how it would be used in the next step of the research. The participants were all thanked for their contributions.

Post–Discussion Information

During this stage, participants were invited to ask any further questions about the research and to reflect on any issues that may have been raised in the discussion [197].
The detailed protocol can be found in Appendix D: 9.

4.7 DATA SATURATION

Data saturation, as a theoretical principle, refers to the stage in data collection when no more new information or issues are generated from the discussions within the focus groups about the topic at hand [197]. In this study three different groups of participants were involved each discussing clinical education from their perspective. It was anticipated that the perspectives on clinical education within each group and between groups, would vary. However, the data were considered saturated when no new issues related to clinical education were introduced across the three groups, even if they had varying views on the issues [193]. Data saturation in this study was determined by the researcher and research assistant comparing the topics listed on the posters (described in the **Group discussion activities section** above) which detailed the specific topics discussed in each group. As the topics discussed in all three groups were similar it was concluded that the data were saturated and additional focus groups were not necessary [197].

4.8 TRUSTWORTHINESS

Applying the principles of credibility, dependability, transferability [200] and conformability [201] ensured the trustworthiness of this qualitative study. Continuous member checking during the focus group and using the record the group proceedings on a socio-gram, ensured that meanings were succinct and interpretations were reflective of what was said. An audit trail and the use of thick and rich descriptions to explain contexts and perspectives were used to reflect the reality of the participants. The researcher also practiced reflexivity though being self-reflective, and recorded her thoughts, feelings and experiences in a journal [194], cognisant of the fact that she held views on the topic [202]. Finally, the research assistant who acted as the recorder/note-taker, checked the accuracy of the transcriptions, the interpretation of the data, and relevance of the findings to the research question [176].

The credibility, transferability and dependability of the study were considered by collecting data in focus groups which were all completed within a limited time frame. Using the same protocol focused the participant's views and concerns about clinical education, as well as collecting the data from a sample of participants who had experiences of the clinical education process and were representative of each group of stakeholders [186]. The use of these principles made it possible to collect rich thick data.

Reflection was used during the content analysis by considering the verbal transcription of the focus groups as well as the non-verbal communications recorded in the field notes, socio-gram and researcher's journal so as to consider both the manifest and latent content [200] that reflected the reality of the participants, both individually and collectively, related to clinical education. In the light of the descriptive phenomenological strategy used, the researcher's biases and assumptions were not bracketed but considered important within the data analysis process [186]. The principle of confirmability was used during the focus groups where the researcher used continuous member checking, both verbally and through the use of the poster, to verify and clarify experiences, meanings and perspectives. Confirmability was also used during content analysis as the research assistant checked the accuracy of the word-for-word transcriptions of all three focus groups and compared them to the socio–grams and field notes. She confirmed that the codes recorded in the code book, which resulted from the

initial step in the content analysis, were representative of the data and relevant to the research question and objectives of the focus groups [176]. She also verified that the data were assigned to the correct code in the QSR International N Vivo 9 version 9.2.70.0(32-bit) programme, and the themes that emerged from the later analysis were appropriate.

An audit trail was completed on each aspect of the qualitative study so as to record the steps that were taken and the decisions that were made [196].

4.9 DATA ANALYSIS

Three sets of data were analysed and are presented below.

4.9.1 Demographic Questionnaire Data

The demographic questionnaire data were analysed descriptively. The characteristics of the participants of each focus group were described using percentages, means and ranges for the variables that were recorded.

4.9.2 Focus Groups

Understanding of the term 'clinical education'

The understandings of the term 'clinical education' of all 25 participants were entered into an Excel spread sheet, with a column dedicated to the participants of each focus group. The reason for this was the assumption that the participants within each group would have a similar interpretation of the term, but that the collective interpretations of the groups may be different to that of the other groups. The manifest content of each understanding and each group of understandings was analysed.

The lists were read carefully several times Conceptual descriptive labels identifying key ideas in the text and similar concepts were put together as codes in a frequency table [181, 200]. The main ideas of these understandings were then compared within and between the three focus groups so as to identify if the focus group participants had a similar or different appreciation of the concept of 'clinical education'.

Focus groups

The audiotapes, socio-grams, field-notes, and researcher's journal for each focus group were labelled A, B and C [197]. The audiotapes were sent for word-for-word transcription.

The verbatim transcript of each of the three focus groups was checked by the researcher. In instances where the audiotape was unclear, the information was checked against the socio-gram to decipher what the participant had said. The transcription was then confirmed with the research assistant. The data were anonymised by removing all identifying information from the transcripts [197]. In order for the researcher to immerse herself in the data the transcripts were initially analysed manually and only later was analysed QSR International N Vivo 9 version 9.2.70.0 (32-bit). The transcripts of each focus group were then printed on a different colour paper so as to distinguish between the three groups [193].

The focus groups were analysed both within each group and across the groups in order to develop an overview or 'general sense' of the status of clinical education on the Wits clinical teaching platform, but at the same time reflect the varied opinions, beliefs based on the experiences of each individual and group of stakeholders [203]. To reduce and distil the data, the researcher read all transcripts carefully, initially identifying, and then recording open axial coding units [193, 200]. A process of aggregation followed whereby the coding units were grouped using an inductive coding process [203] which came directly from the data; deductive codes, which were facilitated by the researcher, and in vivo codes which were named after specific expressions used by the participants [200]. These were listed in a codebook together with a description of each code. The description of each code included the dimensions, the range and depth of components of each issue, as well as the frequency with which it was raised [192, 197]. The process of coding continued until all data were accounted for [197].

The research assistant also read the transcripts and independently developed a set of codes. These were compared to those of the researcher, and the codes and descriptors were modified on the basis of discussion to confirm the validity of the code [197]. The codes and data were then entered into QSR International N Vivo 9 version 9.2.70.0 (32-bit) for analysis.

The data were re-coded resulting in some individual codes being merged. The codes were organised into themes. Themes were considered to be the 'structures of experience' p.78 [195] of clinical education considering the life world themes: the experience of context, time, activity, person and relationships [195, 203]. The themes were

divided into sub-codes. A road map/diagram was drawn as a visual representation of the themes that emerged from the data. On the basis of the road map/diagram the themes were again reorganized and a data search was undertaken to ensure that the text supported and verified the emerging themes and sub-codes, and all issues that were raised by the participants were classified [197]. Finally, transcripts were re-analysed and compared with socio-grams, field notes and researcher's journal to obtain thick and rich data by describing the meaning of the issues raised within their social context [197].

4.10 RESULTS

A total of three focus groups were completed; one for each stakeholder group. After the initial content analysis it was concluded that the data were saturated as the issues raised by the participants were similar within and across all three focus groups.

4.10.1 Demographics of the Participants of the Focus Groups

4.10.1.1 Occupational therapy clinical educators

Although only eight OT-CEs confirmed their attendance, on the day nine OT-CEs arrived and participated in the focus group (n=9). All participants were female, seven were white, one was indian and one coloured. Eight participants were between 21-30 years of age, and one was slightly older, between 31-40 years. Seven participants had qualified at the University of the Witwatersrand; the other two graduated from the Universities of Stellenbosch and Western Cape respectively.

Two OT-CEs had completed a postgraduate diploma in occupational therapy (22.2%), and two had completed additional courses (22.2%): one in Bobath and one in Neurodevelopment Therapy (NDT) (11.1%).

The clinical experience of the OT-CE participants (n=9) varied from less than one year to ten and more years, with the mode at five years (See Figure 4.2).

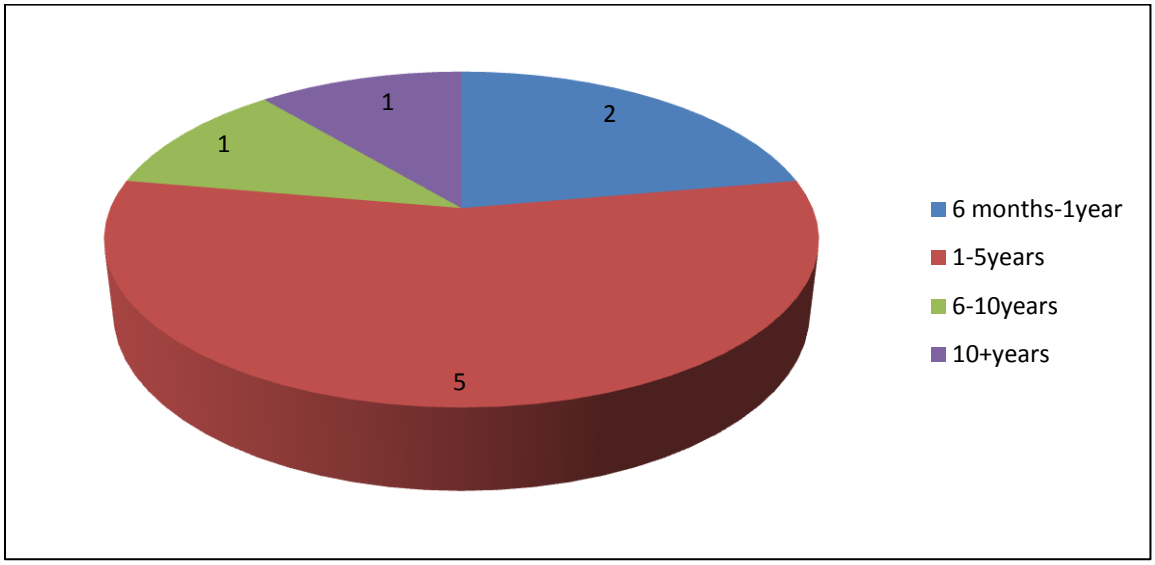


Figure 4.2: Years of Clinical Experience of OT-CEs

Figure 4.3 shows that all the fields of practice were fairly equally distributed within the OT-CE sample.

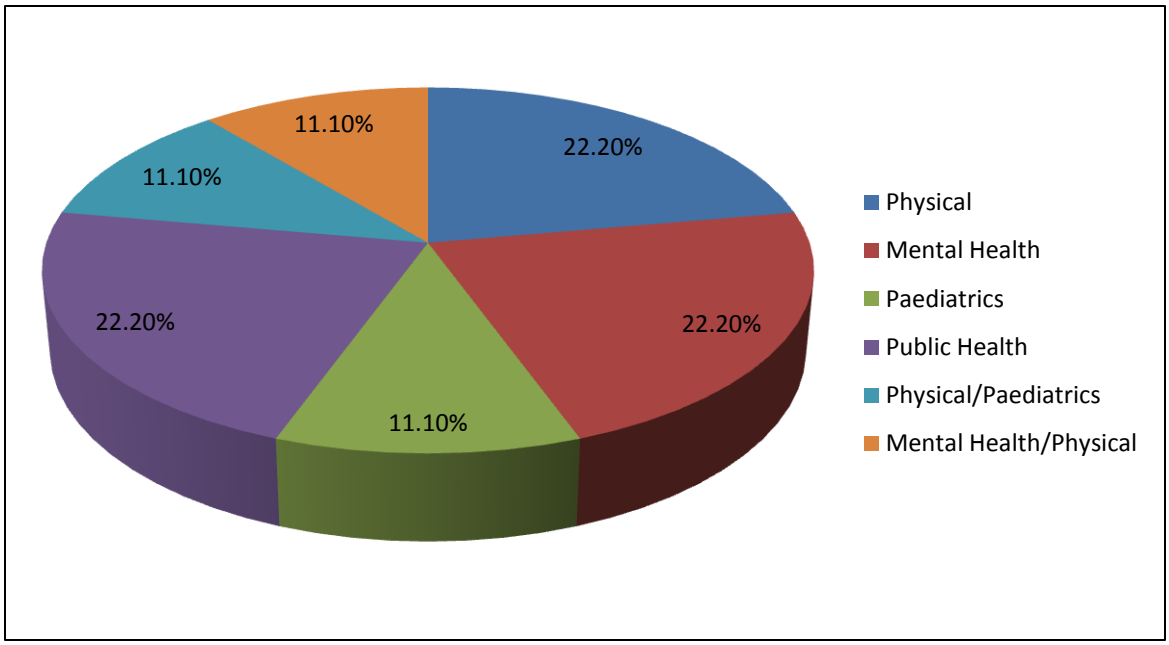


Figure 4.3: Fields of Practice of OT-CEs

Eight of the OT-CE participants (88.8%) worked in the public health sector and only one (11.1%) in the private sector. Two (22.2%) were employed in community service

posts and five (55.5%) on Grade 1 (1-10 years) in posts labelled Production Therapist. One (11.1%) OT-CE had a supervisory level post and the final one was in an Acting Assistant Director post (11.1%). All participants worked full time.

Between them, eight participants (88.8%) had been responsible for the clinical education of 47 students, although the OT-CE in the Acting Assistant Director post had not been responsible for any students. The average number of students per OT-CE (n=8) was 5.9. However, Figure 4.4 shows that the OT-CEs with the least experience had been responsible for the most OTSs.

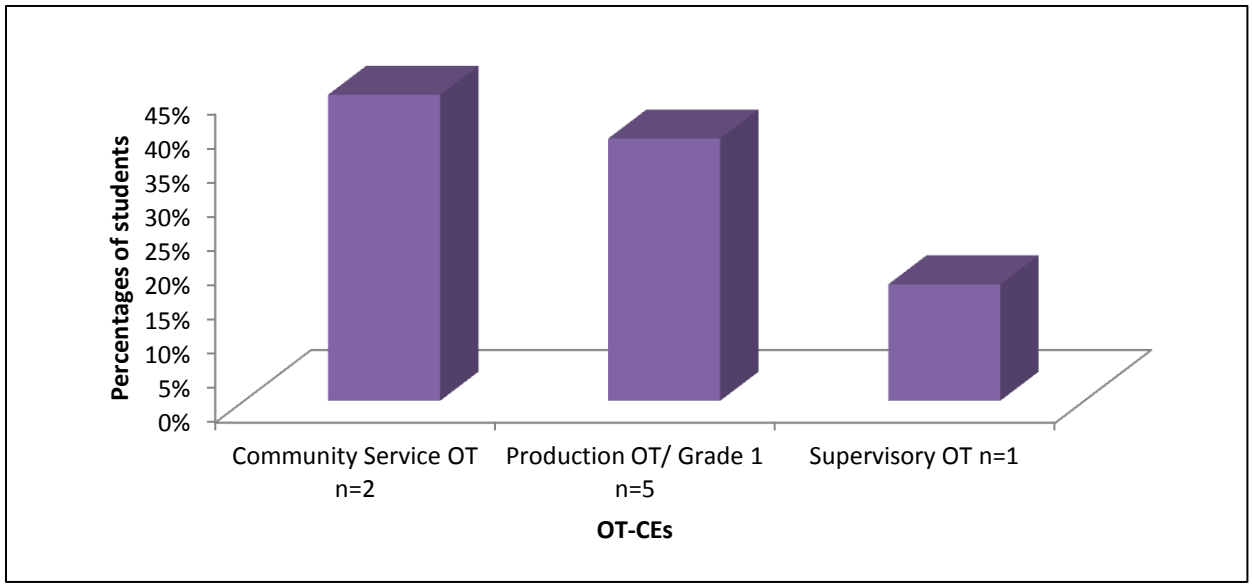


Figure 4.4: Percentage of Students per Post Category

4.10.1.2 **Students**

Eight female students participated in this focus group (n=8). Seven students were white and one was Indian. Their ages ranged from 21 to 23 years with the mean age 21.7. Six students reported that occupational therapy had been their first career choice. Six students reported that they had entered the occupational therapy programme directly from school, while one student reported taking a gap year and another had completed one year in another programme. Only one student reported that she had failed a year, thus seven students were in their final year in minimum time.

Table 4.5 describes the students' rating of their academic and clinical performance within the context of their class. Most students rated both their academic and clinical performance in the middle third of their class. One student reported her clinical performance as being better than her academic performance.

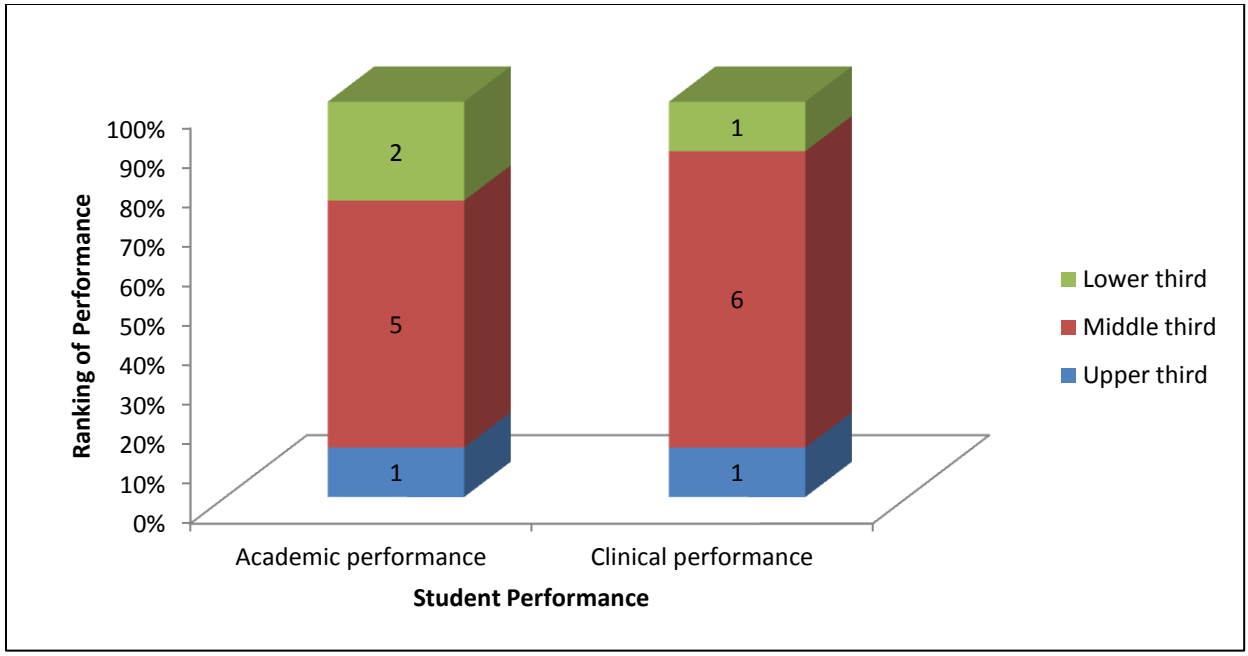


Figure 4.5: Student Rating of Academic and Clinical Performance

4.10.1.3 **University educators**

There were eight female participants in this group. The group consisted of one black and seven white participants. This group of participants were older than the OT-CE group with and only one was between 20 and 30, five between 30 and 39 and two participants were between 50 and 60.

University staff completed their undergraduate degrees at the Universities of Pretoria and Wits, with equal numbers (n=3). One had graduated from MEDUSA and the other from the University of the Free State.

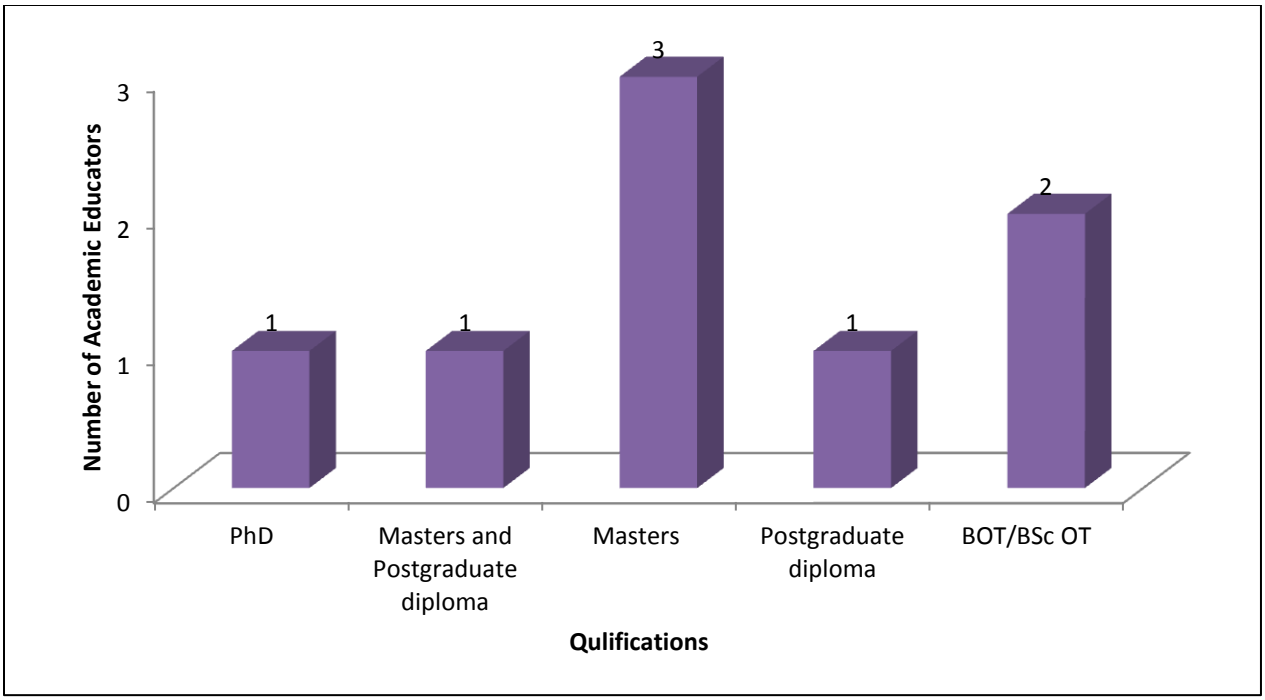


Figure 4.6: Qualifications of University Educators

As can be seen from Figure 4.6 six of the university educator participants had postgraduate qualifications. The three university staff members without a Masters level qualification were registered for the degree. The participant with the Masters and postgraduate diploma was registered for a PhD.

As can be seen from Figure 4.7, 50% of the participants had over five years experience in the education of students, and two had more than 20 years of educational experience.

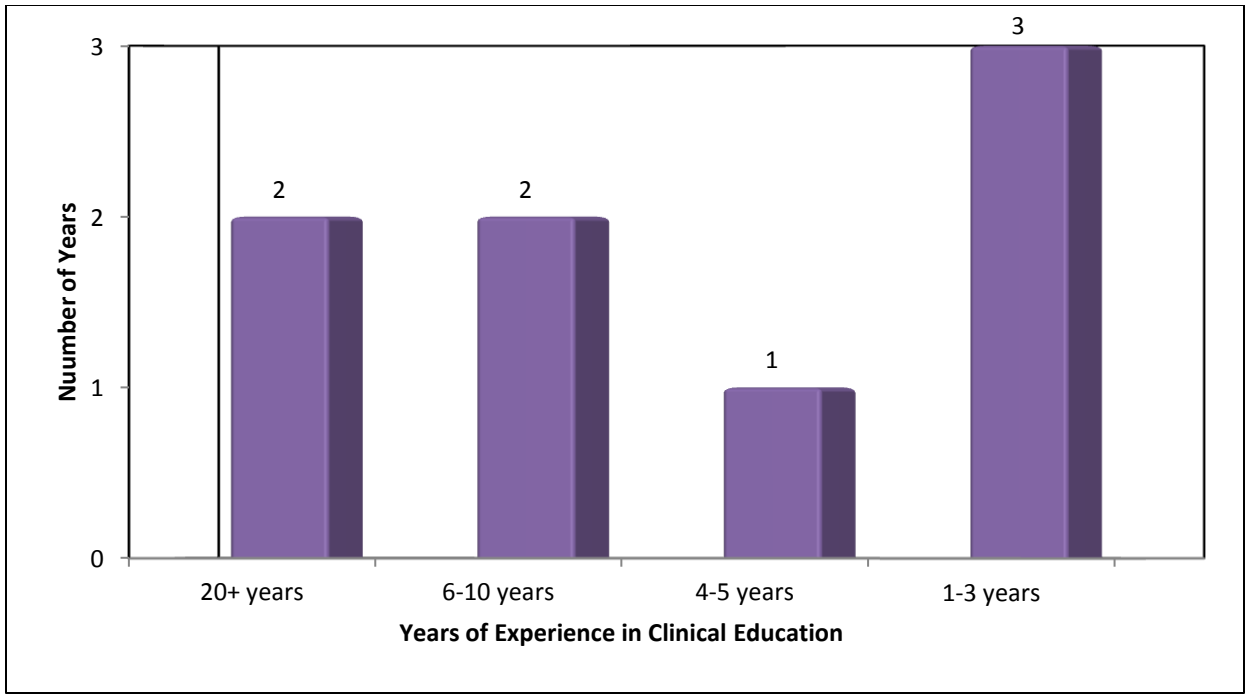


Figure 4.7: Education Experiences of University Educators

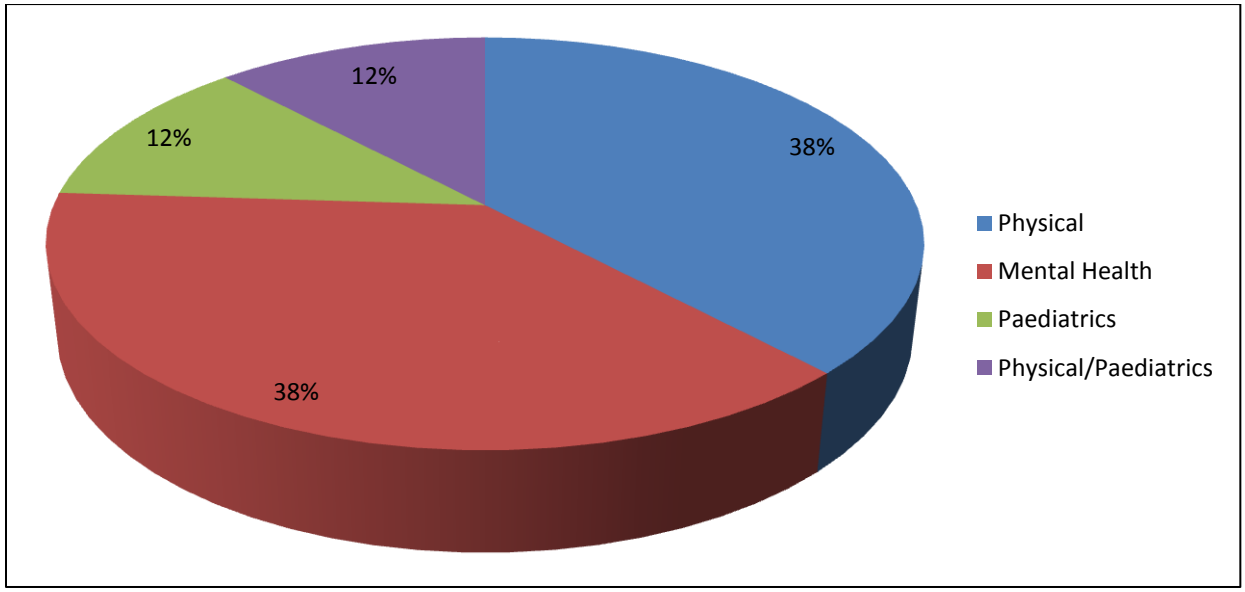


Figure 4.8: Fields of Practice of University Educators

The main teaching load of participants can be seen in Figure 4.8. Seven were employed full time and one worked part-time. During the course of the year they had been involved in the clinical education of 109 final year students, although the number varied from 7 to 20, with a mean of 13.6.

4.10.2 **The Focus Group**

The OT-CE group was the first of the three focus groups. This focus group included members who were not known to each other, therefore was the least cohesive of the three groups. There was some tension in the group prior to starting that was reflected in the small talk. Tension between two particular group members was quite tangible and initially influenced the group participation of one member. There was less spontaneity in this group and the discussion was less animated than in the other two groups. Initially the group members directed their contributions to the researcher rather than the other group members. The younger group members were quiet initially and their comments and opinions had to be facilitated. One group member participated actively initially and then withdrew from the discussion although remained engaged throughout.

The warm-up activity was helpful in stimulating reflections on their experiences of clinical education and facilitated interaction within the dyads, which helped in raising pertinent issues for discussion. Both their experiences of the benefits and the challenges of clinical education were discussed, as well as the strategies used to deal with the difficulties. Although a broad range of beliefs, opinions and concerns were raised and discussed, this was the least emotive of the three focus groups.

The student participants were well known to one another and they were all comfortable and experienced in working in a group. All students appeared relaxed prior to the group starting, and chatted to both the researcher and the research assistant.

The discussions were lively and emotive at times, with strong and descriptive language, gestures and body language. The discussion was predominantly between the students, with occasional interventions from the researcher for purposes of clarity or to refocus the discussions. The climate throughout the group was positive, although the content of discussion reflected resentment and anger at the negative incidents and experiences that were reported. There was non-verbal support and acknowledgement of positive experiences and views expressed throughout the focus group. Students had a balanced approach to the topic, relating both positive and negative clinical education issues based on their experiences as well as those of their peers, and had clearly formulated beliefs about positive and negative clinical education as learning experience, the consequences and reasons for each.

The university educator participants were also well known to one another and used to working together. The locomotion of the group was fast with lively discussion and little intervention from the researcher was needed other than to clarify information and ensure everybody got an opportunity to speak. Two members were fairly quiet at times, but their body language reflected that they were actively involved in the discussion. The climate throughout was positive, and participants were able to express contrary opinions easily. The discussion was reflective of the group members' experiences of clinical education, problems relating to the classroom teaching and attitudes to education. This group was less emotive than the student group but the discussion had depth and reflection.

4.10.2.1 **Understandings of the concept of clinical education**

At the beginning of the focus groups, each participant was asked to record her understanding of 'clinical education' as a concept. While this was used as a warm-up activity, the purpose was to meet the first objective of the qualitative study (See Figure 4.1). The participants failed to write a single concise definition but listed 77 items between the three groups relating to clinical education, with the OT-CE and students raising similar numbers (32 and 31 respectively) and the university educators the least (14).

A common understanding between the focus groups is that the OT-CE needs to be a good role model (n=13).

Although the OT-CEs recorded 32 items, the frequency of these was low between 1 and 4. The items with the highest frequency emphasised their perceived role in integrating a student's theory into practice (n=4), allowing students to observe a more experienced occupational therapist assessing and treating and giving tutorials (n=3). The students recorded 31 items with a frequency of 1-6 with the items with the highest frequency being: constructive feedback (n=4), indicating what is acceptable and what needs improvement (n=6) in both written and Clinical education (n=5), indicating how this can be achieved (n=4), and the OT-CE being supportive (n=4). Students also listed ethical work and practice of the profession (n=3) as well as regular and timely feedback (n=3). University educators had much fewer items and the frequency on items ranging from 1-6. Their understandings emphasised giving guidance (n=6),

providing learning opportunities and facilitating knowledge (n=3) as well as the partnership between the student and the OT-CE (n=3).

Table 4.1 - 4.3 sets out a consolidated understanding of all participants in each of the three focus groups, indicating the frequency of each issue. The aspects of the understanding that appeared three or more times and more have been highlighted.

Table 4.1: Understandings of the Concept 'Clinical Education': OT-CEs

OT-CEs
Clinical education is understood to include the facilitating (1) and managing (1) of student growth (2) through learning by means of teaching (1), guiding (1) and supporting (2) **students to integrate theory into practice** (4) by: Providing appropriate learning opportunities (1) and resources (2) consistent with the university block requirements (2) and having a qualified occupational therapist (2) to enhance practical skills (1), assessment and treatment of different diagnoses(2) and learning as much as possible from the block (1). Being a good role model, (3) for all aspects of the profession (1), who is aware of (1) and critical of own performance (1) so students can learn from somebody with more experience (1). Allowing students to observe a more experienced occupational therapist assessing and treating (3). Discussions (1) and sharing of knowledge (1) and tutorials (3). Opportunities to try techniques and treatment methods and showing them how to Use them effectively (1). Observing interactions with clients (1) and assessments and treatment (2) and giving accurate and timely feedback (1). Marking / correcting student's written work (2) and giving feedback (1). Showing students how the setting works (1). Managing time so the student can work all day (1). Being an efficient liaison person with the university concerned (1).
Total of 32 items

Table 4.2: Understandings of the Concept 'Clinical Education': Students

Students
Clinical education is understood to be a student's personal responsibility (1) and aims to understand how to practically apply what has been learnt in theory (1) **from an OT- CE who is a role model** (6) and provides a practical example of how to work in a specific field (1) by being: Motivated (1) enthusiastic (1), respectful and understanding (1), helpful (2) supportive (4) and encouraging (1), approachable (3) and available (2) on a daily basis (2) and who has a hands on approach (1). Ethical in work and the practice of the profession (3) so that there are not rules for students and others for qualified staff (1). Shares their knowledge and experiences (2) and allows students to observe their treatment (2) and demonstrates practically how to deal with clients (1). Aware of the university requirements (1) but also providing the student with a work load that will benefit the student's the student's learning and not just meet the university requirements (1). Who gives time to clinical education by marking written work and giving constructive comment and making time to watch practical sessions and give feedback as though it was a "mock" treatment demonstration (1). Gives regular (3), timely (3), pertinent (2), constructive (4) feedback indicating what is acceptable and what needs improvement (6) in both written and clinical work (5) with a proposal/pointers as to how the improvement can be achieved (4). Both written and verbal feedback, to talk through problems (1), should be scheduled and this time committed (1).
Total 31 items

Table 4.3: Understandings of the Concept 'Clinical Education': University educators

University educators
Clinical education is understood to be a partnership between an experienced CE (3) and an inexperienced student to shape the students clinical skills in a real world setting to create a competent OT by providing on the job guidance (1) by: Providing learning opportunities (3) within the field (1) to allow the 4th year student to be hands-on with appropriate clients ; Facilitating knowledge (3) not teaching the students from "scratch" so as to consolidate theory and apply it to practice (1); Giving guidance (6) about the OT process in specific fields of practice and by demonstrating both assessments and treatments and certain techniques and procedures, giving students regular, consistent, valuable verbal and demonstrative feedback, both positive and negative (2), so that the students can grow (2) and gain confidence in their abilities (2) as clinicians(1). Evaluating the students' performance (1). Being good role -models (4). Introducing students to multidisciplinary team members (1). Understanding the journey the student has to go to become a good OT (1). Mentoring the students (2). KEY for Tables 4.1,4.2,and 4.3 Most common item across the groups Frequency of 6 Frequency of 5 Frequency of 4 Frequency of 3
Total 14 items

4.10.2.2 **Perceptions of the quality of clinical education**

Three themes emerged from the collective data from the three focus groups. These three themes described participants' perceptions of the factors impacting on the quality of clinical education that was the second objective of Study 1.

The first theme entitled 'Pockets of Excellence' described the factors that support good quality clinical education, while the second theme 'Challenges' described those factors that participants perceived challenged the quality of clinical education. A final theme 'Grapevine' described the covert communication network within each group that transmits information, both positive and negative, which influences the perceptions of students, OT-CEs and the training sites and indirectly but strongly influences perceptions of quality.

Table 4.4: Theme 1 'Pockets of Excellence'

Theme	Codes	Sub-codes
Theme 1: '**Pockets of excellence'** (in-vivo)	Professional ethical role-modelling (in-vivo code)	Excellent clinicians
		Desire and ability to help students learn
	Relationships (inductive code)	University-OT-CE relationships
		OT-CE-OTS relationships
	Well managed department (inductive code)	

Theme 1 deals with excellence in clinical education and has been given an in-vivo label from the words that participants used to describe this theme. All three groups of participants perceived that there are some OT-CEs who provided excellent clinical education to students irrespective of the clinical site at which they clinical education takes place. '*At the end of the day, like the supervisor and not the placement makes or breaks your prac. Because you can go to the worst placement and have an awesome supervisor, then it is the most wonderful placement ever.*...'[S6].

4.10.2.2.1 <u>Interpretation and meanings of Theme 1: 'Pockets of excellence'</u>

The three codes related to this theme were echoed within all three focus groups. The first was an in vivo code, which is a replica of the terms used by all three groups:

‘Professional ethical role-modelling’

This code emphasised the importance of the student learning by example and of seeing what good practice looks like. Participants were in agreement that central to professional and ethical role-modelling was ‘excellent clinicians’, which was the first sub-code.

Excellent clinicians

From participants’ experience, excellent clinicians were considered to be knowledgeable reflective, accountable practitioners who are experienced, doing good therapy, could explain what they are doing and why, and could show students how to do it. They are also passionate about the profession, committed to its value and as well as having a sound understanding of the context of service delivery within a broader health or education system. These factors are highlighted in the following quotes:

‘*somebody who has had let’s say five years experience’* [S8]; *’Good role-models’* [UE6]; ‘... *that is the thing; somebody there knows... they can say to the student if they are having a problem...try this. I have found that this works, and there is a real concern for the quality of work’* [UE7]; ‘..*they* [OT-CEs] *know what they are doing and so enjoy it so much more...*’ [UE6]. This was also echoed by the student participants: ‘*You can watch what they are doing...seeing clinicians treat is really helpful’* [S2]. ‘*I got xxx it was amazing ...I feel I learnt so much from actually seeing somebody work that hard and know exactly what principles they were following and then to be able to discuss it afterwards: so those were the aims, these are the principles, did you see how this happened and can you see what it means*’ [S8]; ‘*They* [OT-CEs] *actually physically show you how to handle this child during an assessment and they demonstrate a treatment session also.....it is one thing to see it on a video and to be told how to position the child, but it is another to do* [it]*’* [S3]. The same sentiment was reiterated by the OT-CE participants: ‘...*it’s very important for the student to be able to see the theory in practice. To see the trained, qualified and experienced OT actually physically treating the patient because it’s very different to learning it on paper*...’ [CE8]. *‘A lot of students are not so theory based they are more practical and they need to see and experience it in order to understand it*’ [OT-CE3]. ‘*If you are passionate about your job then you will also*

portray that image to the students' [CE5]; '*..if they see you treating they can understand what treatment is..'* [CE3]; '*..as you know it is very hard to teach ethics, you have to see it in practice, you have to see a patient being ethically treated. You have to see OTs acting in an ethical way towards AMD members, towards their colleagues..'* [CE8].

These are the OT-CEs that students report '*having the greatest respect for'* [OTS3].

Desire and ability to help students learn

The second sub-code in the theme 'Pockets of excellence' related to an OT-CE's desire and ability to help students learn. Two main issues were discussed in relation to this sub-code: the desire and ability to teach and secondly the benefits of having students in the department and being associated with their education which influences the attitude of OT-CEs towards students and their willingness to contribute to their educational process.

Some OT-CEs like to teach and share their knowledge and skill.

'*I think that some people are naturally able to get their knowledge across to other people* [OTSs]*.... and some people quite enjoy having students you know, even although it is exhausting at times'* [OT-CE9]; '*..there are some [OT-CEs] that I think really do love it [supervising students] and we* [OTSs] *have really good pracs'* [OTS6]. '*You had a very good block because you had an excellent supervisor who was enthusiastic, wanted you there and who spent a lot of time with you...'* [UE4*. It is because they* [OTSs] *have good supervision and they have positive experiences. The students are happy and they see therapy happening'* [UE5].

A willingness to take time to help and encourage students was also discussed.

'*We had this student on Friday and* [we gave her feedback]. *She just broke down in tears. She was so stressed out and [felt] she was not coping. We sat her down and asked her...what she wanted to achieve from this block and we spoke to her about her patients because we knew her patients and we made a plan for her to move forward. The report she handed in today went from a 48 to 68%. This was some more encouragement for her and I am glad we sat her down like that. These are little things that we can do'* [OT-CE2]. The university educators agreed that some

OT-CEs spend time with the fourth year students especially '*the ones who are struggling. They do much more and quickly go over* [theory] *and try to get them* [up to speed]' [UE1].

Some OT-CEs report also benefiting from having OTSs.
'...for us it is a benefit to have students there...we always learn something more..'[OT-CE1]; '...*students help us know all the latest trends, research and all those type of things*' [OT-CE1]; ' ...*they* [OTSs] *treat the patients and we* [OT-CEs] *oversee the programme'*..[OT-CE7]. '*They help us in terms of lessening the load..*' [OT-CE9].

Relationships

The second code in this first theme emphasises 'relationships' as being central to the perception of excellence of clinical education. Two sub-codes were defined which reflect the kinds of relationships that influence excellence in clinical education.

University staff-OT-CE relationships

The first sub-code related to university staff-OT-CE relationships that form to support clinical education at different clinical education sites.

'I think that we [university educators] *have a role.....to work as a team and to have close relationships with those people* [OT-CEs]*, to role-model clinical education'* [UE5]; ... '*to teach the OT-CE to supervise'* [UE6]. *'..I have found it quite nice this year having only one hospital* [at which to supervise]. *I got to know the OT-CEs, all of them really well. I got to know what their strengths and weaknesses are. I enjoyed that. When I went this last block I had a relationship with them. I could help them more effectively'* [UE7]; '*I have also built up a relationship with X and I now understand where the issues* [previous problems] *come from. We have not had any problems for ages. One of the ways of building up these relationships is'* [UE5] *'consistency'* [UE4]. '*That is one of the positive things about having a more consistent or constant body of staff. It means that we do not have to introduce a new person into the clinical placement every so often. So you are in a position that you can start building relationships*' [UE3]. '*Our relationship with a supervisor can make a difference*' [UE7].

The participants also discussed the nature of these relationships. When there is respect between OT-CE and the university educator '*they can take feedback from you'* [UE3].

This kind of positive relationship '*has fed into the clinical education at X clinical education site and allowed us to address the legitimate issues that the students have raised*...' [UE3]. In contrast when students are aware '*that the relationship with OT-CEs is not solid they play into it so well by splitting which creates conflict and dissention between the parties*' [UE2].

Clinical educators also commented on the importance of good relationships with the university staff in coping with clinical education especially when inexperienced.

'The one thing that helped me was that the Wits supervisor was somebody I could rely on, was very supportive, was somebody who you could talk to and told me what to do: how to mark, how to see where you were going [with an OTS] *and how to give feedback. I definitely feel that this relationship was helpful'* [OT-CE7].

<u>Clinical educator student relationships</u>

The second sub-code was OT-CE-OTSs relationships as the basis for excellence all clinical education processes. This is a relationship that:

'*supports and mentors a student throughout their block. A relationship that builds them up as therapists and builds their knowledge and skills and allows them to manage* [feel confident] *in a real life situation'* [UE5]; '*I have the greatest respect for the X OT-CEs. It was amazing and shoot I can't put it into word. I have learnt so much from them. All of them are just open and willing to help you. You are able to go to them at any time of the day assuming they are in the office, you can find them in the ward and maybe talk to them and they will give you help. I think that increased my respect for them and it actually allowed me to feel a little more relaxed with myself, learn more and have the ability to know more and figure out where I am going as an OT'* [OTS3]. *'It is all about the OT-CE being approachable. You have respect for them just because you feel like you can ask questions. You feel you can walk into their office and say: "will this work?"* '[OTS4].

They also are not totally work focused and

'have [time for]*a bit of personal interaction'* [OTS5]; *'where they approach you...,they come up to you and say: Are you ok? Are you having any problems? Is there anything you want to discuss? Can we get together in the office and meet about ....?*' [OTS7]. '*I have had very approachable* [OT-CEs] *so I feel confident..it actually makes me want to learn more because I will go to them and we will have a discussion they will give me the answers and I just feel like that makes the learning experience so much more*' [OTS 7].

A well-managed department

The final code in this first theme was having a well-managed department as the context for excellent clinical education. This was not perceived to be as critical as the previous two codes discussed above, as some participants perceived that the OT-CE determined excellence more than the context.

'*At the end of the day like the supervisor and not the placement makes or breaks your prac. Because you can go to the worst placement and have an awesome supervisor then it is the most wonderful placement ever....*' [OTS6]. In contrast '*Placement Y is believed to offer an excellent clinical education experience* [for OTSs] *because of the head of department. You see a much greater level of clinical ability...Good HOD, all his experience and he makes sure that all his staff have opportunities to learn and develop'* [UE7].

Stability, support for education and leadership in clinical education sites allows OT-CEs to develop competencies '*because they have resources'* [UE1], *'know how the system works'* [UE7] and are held *'accountable'* [UE2].

'Students need to see how good departments run' [OT-CE9] and gain an understanding of how a department is organised and managed. This is essential information for students to plan their workload, tailor their client care and responsibilities in keeping with how the occupational therapy service is delivered at that site. *'All departments are different...giving them* [OTSs] *a timetable.... seems to help them* [OTSs] *just to give a bit of structure in terms of how the department run: when and what patients do then so they can kind of slot things in'* [OT-CE3].

4.10.2.2.2 Interpretation and meaning of Theme 2: 'Challenges to quality'

This second theme reports on the participants' perceptions of the factors that challenge the quality of clinical education on the Wits clinical training platform based on their lived experience. As this discussion consumed most of the time in all three focus groups five codes have been identified to describe the issues that were raised. The codes and sub-codes can be seen in Table 4.5 below.

Table 4.5: Theme 2: Challenges to Quality

Theme	Codes	Sub-codes
Theme 2: Challenges to Quality	Poor role-models (in vivo code)	Is this Occupational Therapy?
		The ethos of work
		Sinking into the quagmire
	Reluctant OT-CES (inductive code)	Lack of desire to teach and facilitate learning
		Use of power and authority
		I suffered so you will to
		Disempowering students
	The clinical curriculum (inductive code)	Practice versus learning
		What do the requirements mean?
	Students as learners (inductive code)	How students learn
		It is all about the marks
		Poor coping skills
	Time (in vivo code)	Time to learn
		Time to help students learn

As can be seen from Table 4.3 thee sub-codes were identified for this code that reflected the concerns raised about poor role-modelling and as a consequence what OTSs were seeing and not seeing as an example of professional practice. This raises the question as to why this is happening and the effect of this for clinical education.

Poor role-models

This code was echoed in all three focus groups. Strong and emotive language accompanied discussions and this topic was revisited many times during each of the groups. In contrast to the central importance given to good role-modelling in clinical

education in the Theme 1, in Theme 2 the concerns about poor role-modelling are reflected in the following quote:

'*Ja, I think students don't always get a lot of opportunity to observe* [professional ethical role-modelling] *in the settings where they are. I think sometimes the environment does not lend itself to that, like there might be only one OT working, but I think in certain circumstances it is the fault of the clinicians that do not* act ethically' [OT-CE8]. *'I absolutely agree...I have been in places before when you don't see* [any therapy] *happening and when I was a student you felt as though you were the only person treating from the whole department'* [OT-CE4].

<u>Is this occupational therapy?</u>

Seeing occupational therapy in action has been highlighted as critical to the OTSs' clinical learning process and one would assume that this would typically be what OTSs see in occupational therapy departments However this is not OTSs lived experience: *'...seeing clinicians actually treat is really helpful. But you don't see that often'* [OTS2].

Also if some kind of therapy is being offered it is often not recognisable as occupation-based therapy which is the approach to occupational therapy that has been accepted worldwide and which is a key principle guiding teaching.

'*When I go into hospitals all I see are prep-adjunct techniques and prep-adjunct activities being done. No purposeful activities and hardly any ADLs or anything like that. Only stacking cones'* [OTS6]. '*Sometimes you see therapy but it does not look like OT. It looks like a bit of physio or a bit of 'how are you today' counselling. Surely if somebody is coming from home to a therapy session you have planned aims...and you do some therapy*'. '*Even in the [private] rehab units, where patients are there for rehab I still feel sometimes that what I am seeing is not OT'* [UE7]. '*Maybe occupational therapy is too hard and we end up with a lots of them [occupational therapy clinicians] checking out what the physio's are doing. It looks nice and easy and I don't need resources. I will just passively move the limb up and down'* [UE4]. '*The therapists tell you that it* [not using occupation-based therapy] *is* [because of] *a lack of resources. Sorry but if you think about dressing and what resources do you need besides the person and what the person is wearing. I mean*

those are functional tasks and they are not even using those. So I think therapists are using resources as an excuse' [UE1].

Some OT-CEs are reluctant to apply theories taught to the OTSs because '*like the theory three-quarters of the time does not match what actually happens* [in practice]' [OT-CE1]. Thus the expectation of practice is not consistent with definition and philosophy of the profession or with what students are taught in the classroom. '*That kind of thing de-motivates you. I mean I get my motivation from seeing my clients improve, and doing these kinds of activities* [cone stacking]*, I wonder how they are benefitting'* [OTS7]. Students also ask *'did I spend four years studying to do this* [stacking cones]*?*'[OTS3].

The ethos of work

This sub-code related to culture of work in the occupational therapy departments which participants experienced as affecting the quality of the service delivery as well as the quality of clinical education. This sub-code again featured in the discussion of all focus groups:

'..*there was this one specific HOD that was very good at drinking tea, and that was all that she did. And I think that if you* [an OTS] *spend time in settings like that you get the perception that that's what you do when you are qualified* [OT-CE9]. '..*in the public sector, sadly there is no accountability so if you want to sit and drink tea the whole day no-one really cares. So that sort of attitude filters through and it is obviously not everybody but there is definitely a sense that I can sit and do nothing all day and get paid for it'* [OT-CE8]. Also '*patients in the public sector are much less empowered to say "excuse me actually you should be seeing me .You haven't seen me for 45 minutes, what's going on" or "I have been waiting for you, where have you been"* '[OT-CE9].

One OTS reported feeling very angry:

'a classic example at X is where a therapist spent the entire day sitting in front of their computer playing cards. And if you asked where something was you were told "it will be in the cupboard or filing cabinet" and they did not even get off their chair' [OTS4]. Students also report that in their experience there were therapists who '[lacked] *the motivation to work'* [OTS1], and suggested this was maybe because

they are overwhelmed by the workload '*the work load is huge for the number of therapists.. and the patients are so acute that they can't do much'* [OTS3] and they are burdened by administration. *They* [OT-CEs] *spend a lot of their time filling forms or whatever it is that they do'* [OTS 5] and it '*takes so long'* [OTS 8].

Participant's report that in some contexts occupational therapists are frustrated and give up because: '*Yeah when you can't see a patient regularly,* [because] *they come once a month. How do you see improvement? How do you actually put what you have learnt into practise? And you know in school situations because students are there every single day you can have a long term* [therapy] *programme because they don't disappear. In hospitals patients are discharged so quickly. They disappear. They don't come for follow up. They come back in six months time. That continuity of therapy* [is lost] *and perhaps, this is my opinion, but the satisfaction with what you are actually capable of achieving is confused*' [UE5].

In some hospitals OTSs reported that occupational therapists do little because '*they just do not have the* [activity] *resources'* [OTS 1]. But doing so little was also reflected in other aspects of an occupational therapists work '*a lot of time you also see the OTA/OTTs* [occupational therapy assistants/occupational therapy technicians] *left to their own devices, they do not know what they are supposed to do. I think if you don't know what to do, you just do nothing and you see this a lot. They just drink tea and obviously they have no work satisfaction and they are not happy therapists. But I think that they are not to blame. I think the blame lies with whoever is supposed to guide these people and give them supervision'* [UE4]. The students also perceive that in many hospitals occupational therapists do not have '*any supervision, they are in charge of themselves and there are no consequences for their actions'* [OTS4]. Supervision , especially of newly qualified staff, is essential in any professional context '*But if you are supervised by the person who is never there because he/she is always away drinking and stuff'..'* then what is the consequence of this to the ethos of work in an occupational therapy department. Lack of accountability and lack of consequence was considered to be alarming, but of particular concern was *'the thing that worries me is about accountability... if they don't see the patient just like no one care*s [UE2] or '*no one knows* or wants to know' [UE4].

More concerning was the experience that '*in some hospitals I almost get the idea, you know what, the patient is so in the way of the therapist. If they could just get the patients out of the way they would be really happy therapists, forgetting that the patient is their main thing. So for me it is about attitude....'* [UE8]. Attitude in relation to professionalism was felt to be central to this problem.

'it comes back to professionalism' [UE5] and the personal responsibility of each therapist for their '*professional development and making sure that they get the support they need'* [UE8] *'like mentoring it should come from the person themselves. It should not come from higher up. It is not a top down thing'* [UE1].

However while it was agreed that professionalism was everybody's responsibility, there was acknowledgement that the system is hard to beat.

'*So it comes back to X's point. If there is an ethos in the workplace that here we do very little, we paint our nails, read magazines and now and then you may finish a book that is unfortunately the wrong ethos. And that comes back to poor leadership, I am sorry to say*' [UE4].

<u>Sinking into the quagmire</u>

Only the university educator focus group considered the consequences of poor work ethic and factors that might contribute to it. The university educators described 'sinking into the quagmire' as a consequence of poor work ethic:

'that has gone on for so long now that it becomes the norm, maybe doing nothing, you understand what I mean, by not seeing a lot of patients, not doing really good therapy. So [when new staff come and] *they are inexperienced, with no one to show them the way, this is the rule, this is the way. This is what we should be doing and they just kind of sink into that same quagmire and it's ok because there are no consequences anyway. You get your salary at the end of the month. It does not matter if you see 10 [patients] or if you see none of them, you still get paid* [UE7].

Concern was raised that '*as a qualified OT they should be able to go into the world and work wherever they find themselves'* [UE5].

However *'we say that they* [OTSs] *learn from what they see others doing, so we are not necessarily going to change the attitude once students get out there because of*

what they see' [UE5]. '*But why are we getting and training people that eventually do nothing?* [UE5].

One thought around this was: '*I am wondering whether the goal of PBL is perhaps too covert... because if it was more overt, surely we would have more independent* [thinking] *students. What I am seeing is there are students who are pretty dependent, now they graduate they become com servs and they don't lose that dependence which I think translates into what their work ethos is going to be. When they proceed they are expecting other people to think for them, but PBL was supposed to teach them to think* [independently] [UE3.] *'The big thing for me is this personal responsibility and that is what PBL is about: To teach students to take personal responsibility, to have an internal locus of control, to have internal motivation not external motivation, and all of that. I mean we talk about it, we teach it but are we somehow sending the completely opposite message?* [UE4]. The counter-argument to this is perhaps the expectation of independence and critical thinking: *'is sometimes not realistic for the* [developmental] *level of these people who are learning'* [UE8]. And that we forget '*that she* [the new graduate] *is barely 21 years old and we want them to be lifelong learners, self-determined adults and have lots of coping skills and not to throw their toys. The older we get the more we forget this.*' [UE8].

Reluctant occupational therapy clinical educators

This code reflected the lived experience of participants that there were considerable numbers of OT-CEs who lacked the desire to teach and facilitate students' clinical learning. This reluctance influenced the manner in which clinical education is being played out in some clinical education sites. Four sub-codes emerged from this code.

Lack of desire to teach and facilitate learning

Conversations reflecting this sub code were evident in each of the three focus groups. Again the discussions on this topic were emotive. A number of reasons were raised as explanations of this lack of desire: dislike of students and the teaching role, clinical rather than educational interest, lack of clinical and teaching/clinical education ability and the OT-CE role being hard work.

Occupational therapy-CE 9 reported*:*
'..one of the OTs in our department..... she hates the students. She doesn't let our students know because she can't, but she just hates them. I think that some people are naturally able to get their knowledge across to other people and others just aren't'. Another clinician from her experience supported this *'some people have the ability to teach and other people do not*' [OT-CE2].

This sentiment was also echoed by the university participants:
'....*the clinical teaching is happening by people who are not teachers and who have not chosen to be teachers.... "Oh the students again: do I have to do it.?" But they are in a position where they are expected to teach students where that is not their main focus or need or want'* [UE5]. It was suggested that many of these clinicians are young and inexperienced and although they have graduated they may not have sound enough clinical skills in all fields of practice to effectively guide the clinical education of students.

'*Like some of our students they now have their 4th choice com serv placement. So they do not necessarily get placed in the areas where they are* [clinically] *strong. So they get a psych placement and they barely scraped through psych'* [UE4]. '*And now I have to supervise a psych block* '[UE2]. '*Can you mark somebody's case history.. if you know nothing about it? Or teach them how to treat?* [UE7]. '*If I teach them* [OTSs] *wrong because I have it wrong all the time then that is what they are going to learn*' [UE7]. '*So yes, people* [OT-CEs] *come with different strengths and weaknesses but if you need to and you are interested you... go and get greater skills, but if you are not interested you might not even realise you don't have any skills'* [UE 5]. It was stressed that they should have some knowledge because '*In the management problem we teach them* [OTSs] *about supervision* [clinical education]*. We talk a lot about the difference between supervision* [clinical education] *and consultation and there is a lot they get in theory. How we can help them take this step from theory into how it is actually going to happen, I am not sure'* [UE4].

Students perceive that clinical education '*may be a lot of work* [for OT-CEs] *and that it is a chore.....and that is why maybe I don't think a lot of them love supervising*' [OTS 5]. Participants also queried if *'Is it because they don't have the supervisory*

[educational] *skills that they can't supervise or is just that they are disinterested?'* [UE3].

Students perceive this reluctance in the attitude of clinical OT-CEs towards them. Students report OT-CEs being unapproachable and uncaring, which is contrary to the characteristics that occupational therapists are supposed to have.
'*I feel like they don't want to know, they do not want to get too involved with you, they do not want to know you and what you are going through or help you*' [OTS4].

However OTSs recognise that they '*cannot learn without supervision... if you don't have supervision you're not sure what is working and not working. You are doing what you think.... but are you really learning, you need that supervision from somebody to guide you'* [OTS7].

Students also reported on the consequence of not having feedback and on their marks.
'*I did not get any feedback before my final....like my theory was wrong*' [OTS2]. Another student reported '*my supervisor marked all my reports but she did not give me much feedback. But the final case did not go well soI thought okay these are the marks that she thinks that I am capable of, so now I think that no matter what I do at the end of the day she is going say you are a 60 percent student and then base all the marks on that of the case pres, but there was a whole lot more'* [OTS4] which took this student by surprise.

Students interpreted this reluctance as the OT-CE being unapproachable and unavailable which negatively influenced the OT-CE-OTS relationship and ultimately the learning experience. '*These people are all OTs that is what gets me. We all have a certain way but they should be compassionate, approachable, patient but we have supervisors who are on the complete opposite end of the spectrum. They are a complete nightmare!'* [OTS4]. 'I*t is all about the supervisor being approachable....if a supervisor is approachable you have respect for them ... you can ask questions...and ask will this work?'* [OTS4]*. If they are not approachable ...I mean you have so many questions you don't know where to start.....you just try to figure it out by yourself'* [OTS7]. Two of the OT-CEs said that their OT-CE

relationship had been complicated by the fact '*students who came to me had been in my class*' [OT-CE6]. '*It becomes quite awkward and you think oh you know this person and it becomes an issue. You know they always want you to put in that little bit extra. Just give me a little bit more and that becomes a problem'* [OT-CE 4]. Students could have construed this as reluctance.

Students reported that from their experience the initial interaction with an OT-CE sets the tone for their perception of whether the person is approachable or not.
'*So you know after two minutes whether they are going to be approachable or not* '[OTS4]. '*I mean on my last block the first words my supervisor said to me was: you are 30 seconds late you will be staying two minutes after... That was her introduction'* [OTS8]. Sometimes OTSs also believe that it is not only the approach '*but their personalities as well'* [OTS 9] that influence the behaviour of OT-CEs.

Students from their experience believe that OT-CEs know that they are not approachable.
'I had one supervisor at one prac who was so unapproachable and the on the last day she came to me and she was a different person. She ended up by having an hour long chat with me and she said "I am really sorry and I know that I was mean and I was unapproachable" and I was like why now when there is nothing we can do about it. It's the last afternoon' [OTS4].

This experience was not unique:
'*I had a similar experience on prac* [that was] *also horrible and also the whole prac and then on the second last day the supervisor came and said "I know I look angry and unapproachable but I really enjoyed you guys being here" '* [OTS6].
Conversely OTSs seem to have a need for the OT-CEs to know about them personally and have empathy for all the difficulties they experience in their work and personal lives and they experience them as reluctant when they are '*unsympathetic and unempathetic'* [UE3]. *'I think that the supervisor should get to know you as a person and not see you as* [just] *another student because each one of us has our strengths and weaknesses. I think that it is important for our supervisor to know so that they know what we can do and how much they can push us, so that we are on*

the same page. So if there are family issues..... they need to make compromises, rather than just expecting you to be a generic student' [OTS6].

The OT-CE participants commented that:

'*I think sometimes students forget like that life does not stop when you work either. We all have to deal with stress in our daily lives. It is just because now you are a student that all of a sudden you must get all the support and help and love and attention. We are preparing them to be professionals. Fair enough, but I think in one sense you can't fall apart at work all the time you know. Obviously life happens but we have to pick ourselves up and work besides the stressors at home and family and whatever'* [OT-CE 1]. *I mean I understand that we all have life crises but they are expecting us to have a parental role and that is not our role... they manipulate us to some extent into wanting us to solve problems because it brings out the therapist in us and then we sometimes lose sight of our role as educator and then that blurs things'* [UE 3

'*We teach them about the supervisory* [clinical education] *relationship* [In the management problem] *and this is exactly what you are describing.... this is what the relationship is meant to be, this is how you hone it'* [UE4].

<u>Use of power and authority</u>

This was the second sub-code in this theme see Table 4.2. Students acknowledge that power comes with achievement of your qualification and when you start to work '*You get a bit of power'* [OTS5].

However, it is the injudicious use of this power that was reflected in students' experience that reluctant OT-CEs use their power and authority to control and put students down.

'*I think that they have a bit of an attitude, a bit of power and authority kind of issue*' [OTS7]. *'Some supervisors like that power because they want you to know that you are down there and subordinate and they are up there and have the power and you have to respect them'* [OTS6]. Students also believe that OT-CEs use their authority to criticise students in a manner which OTSs feel is unjustified. '*You have nail polish on; you will take it off. And you have too much makeup on. And those of*

you who know me really know that I do not wear a lot of makeup' [OTS8]. Students also perceive that OT-CEs use their power inappropriately. '*You get [OT-CEs] that just think that they can crush you and you can take on their work on top of what your requirements are and that is not cool, it's just like they don't want to help you"* [OTS3].

University educators identified that reluctant OT-CEs use their power somewhat differently and have unrealistic expectations of the final year OTSs in terms of what they should know and be able to do and that students are dealt with punitively because of this.

'*What we identified was the unrealistic expectation of some of the clinical supervisors* [educators] *of our students and that the OTSs are punished for this. The [OTSs'] level of competency and the expectation of what they should be able to do....it is not realistic for the level of these students who are learning and they should provide the [learning] opportunity instead of being punished* [for not knowing and not being able to do what the clinician can do]*'* [UE2].

'I suffered so you will too'.

This third sub-code relates to the perception that OT-CEs teach OTSs as they were taught and treated as students in the clinical context and that OT-CEs quickly forget what it was like to be a student. This was expressed in all the focus groups.

'*They forget that they were once students and because they are working they give you hell. I just can't understand* it' [OTS 6].

Since there is no OT-CE training the only frame of reference OT-CEs have is how they were educated in the clinical context. This then becomes the norm for their own practice with respect to clinical education of students.

'*How do you supervise somebody when the role-model* [clinical educator] *you had was terrible and you were beaten to pulp as a student. You do the same to the student!*' [UE7].

Students reiterated this by suggesting that OT-CEs teach and supervise the way they do because '*they were handled in the same way'* [OTS3]. Students also believe that OT- CEs also '*don't have any supervision, they are in charge of*

themselves and they can do what they like and there is no consequence for their actions' whether it is clinical or in the context of clinical education [OTS4].

One of the OT-CEs reported her clinical education experience as being problematic.
'I *had an experience where my supervisor told me she wanted to be a physio, and she could not get into physio so she did OT. She had been practising for four years and she was still carrying on about it. And it made it quite difficult to know what patients to treat...It became confusing like you* [want to] *become an OT but she wasn't passionate about being an OT and it made me start thinking twice: Is this what I really want to do or is it a job that you get bored with. You know she never really developed professionally as an occupational therapist. She always worked together with a physio and did lots of lower limb stuff and the OTA would work on the upper limb stuff. You know it became very confusing'* [OT-CE5].
Interestingly some OTSs related that they had had some experience of being in giving guidance to a first year student.

'*Ja my first year was incredibly bright. But she didn't even know what she was doing'* [OTS1]. *'I just remember writing my first red pen comments [laughs]. So she knew all her work but she wasn't there. She just needed more detail and at the end of it, it looked like a war zone. There was just lots of constructive feedback, well I hope it was constructive feedback, that she will take and put into practice next year. I hope she takes that as she has the ability to do so much better* [if she takes] *that feedback'* [OTS3].

<u>Disempowered students</u>
The final sub-code reported how disempowered students feel in the clinical education situation when they have reluctant OT-CEs.
'*We as students really don't have much power to say* [anything]*. It would backfire on us second to none if we did so'* [OTS 8]. *'We have been taught to assert ourselves. But even if you feel not happy with your supervisor...you dare not open your mouth because at the end of the day...every single thing you do is marked. If you open your mouth once, not even to be rude but to say I do not think this is right or something, they take notes .....and I would rather suck up to the supervisor and do well than open my mouth and say what I have to say and do badly'* [OTS7]. "*If*

you are at X everybody knows ... if she likes you you pass, if she doesn't you fail and I don't think that's fair at all..." but you cannot say anything [OTS3].

The clinical curriculum

Participants in all focus groups discussed the clinical curriculum and how this challenges the quality of clinical education. Focus group participants had different views on the alignment of theory to practice and how the clinical curriculum impacted on the expected outcomes and the requirements which define the clinical opportunities OTSs need to meet the exit level outcomes and their feasibility. The OT-CEs reported on one hand feeling limited because
'*they can only teach what they know'* [OT-CE8].

On the other hand OT-CEs were of the view that what OTSs are taught may not be what is needed in the clinical setting and that perhaps the curriculum should be based on practice rather than theory.
'..*like the theory three quarters of the time does not really match what actually happens... When they* [university educators] *come and they teach the students what they think happens and you think something else, then it is almost like oh my word now there is conflicting information and now you* [OTSs] *don't really know who to believe. But I agree with you, it comes back to experience because you have the experience and they* [university education] *have the knowledge. And the knowledge should go and match to the experience you have, and that is what you have to teach them. Taking into consideration to be updated with all their theory and all those kind of things but to have somebody from the university come and teach them how it works in the clinical setting. It doesn't really work*' [OT-CE1].

University educators are acutely aware of the theory–practice gap which has resulted from the professional paradigm shift away from a more medical model to using an occupational performance model to frame professional practice, which is a serious tension that influences the quality of clinical education.
'*So we train our students in doing these things* [treatment with an occupational performance focus] *but once they are out there it doesn't happen and I don't know for whatever reason'* [UE4].

Furthermore, university educators stressed '*What we need to keep in mind.. is how things are taught...because perhaps we expect our* [OT-CEs] *to teach in the Wits mould* [using the PBL strategy and using an occupation-based approach]' [UE5]. However, '*we invite them* [all new OT-CEs] *to come to workshops here....to educate themselves....this is how we do this, this is the Practice Framework. I think that we really try to overcome that* [using new knowledge and evidence by presenting workshops] *on a continuous basis. But the first thing is that the clinician has to come and a lot are not interested'* [UE4] but then it is hard to provide this important input '*when one is sighing and one is sleeping. It's like* [teaching] *a brick wall* [UE1] and presenters feel they '*are not open to learning*' [UE7]. '*Yeah it goes back to the fact that some people don't like teaching students and can't see the benefit in coming to Wits for the clinicians meetings'* [UE2]. There was acknowledgement that this was probably not the only reason that OT- CEs do not attend. Sometimes their *'workload is such that you can't afford to take the time to be away. That it makes it difficult'* [UE3].

Clinical educator participants reported that they believed that self-development referred to above was important.

'I don't want to say develop our own theories but to know what you think of somebody else's research from kind of just having an idea of what they have found. When students come with [new] *ideas like you don't know whether you should say it is rubbish or fabulous. I think that we need to keep up to date and we need to be reading. We need to know if Wits has changed something and why it is better. Ja I think it is tough, I don't know how much to tell them* [OTSs]' [OT-CE9]. A suggestion to remedy this was '*At the beginning of every year we can have a little workshop just to say that you know that the 4th year is based on the following and that these are the changes so you know and this is the whole aim of everything that is going on. It becomes difficult when they say this has changed, that has changed. I find that I still do what I did in 4th year when I learnt about it and now these changes have come in and I don't know exactly how it fits in. Like you don't have your normal forms, the three ADLs anymore, you know personal management, work and leisure. It's now split into a whole lot of things...and when the students come like ok what is this? You heard about it but you didn't know it had changed so quickly'* [OT-CE3]. It

was agreed that changes to the curriculum give OT-CEs extra work but '*it isn't bad work as we should be doing it anyway'* [OT-CE9].

University educators commented that they did endeavour to do this but *'so few of them* [OT-CEs] *come to the clinicians meetings where we do these things and explain we would like you to do this and this in this way. I mean they just don't come'* [UE8] or '*they pitch and say they are bored to death*' (UE4].

Another problem raised is that OT-CEs lose sight of where students are in their clinical experience programme which influences their expectations.
'*My biggest problem is that now I have 4th year students in their final block at the end of the year. Now the next lot of students go in January. What the clinical supervisor* [clinical educator] *has to get their head around is that the last lot were about to graduate and now in January she has new 4th years* [3rd years after a holiday] *and I always see them comparing too much... but unfortunately the expectations are of what they last remember'* [UE4].

The students were more concerned with the clinical requirements than the theoretical information that was taught although they are aware that there are differences between what is taught and the practise of the profession. '*Yes for me like when I go to a hospital and I see prep-adjunct techniques being done. No purposeful activities and hardly any ADLs or anything like this*' [OTS6].

One of the student participants reported that '*I think it* [challenges with clinical education] *starts with the Wits requirements; I think that the Wits requirements to be precise are unrealistic and from there it depends on the OT-CE whether or not they change that'* [OTS 7]. '*A lot of the work that we get is unnecessary. A lot of the written work is just there to stress us'* [OTS 6]. The university educators on the other hand state we have *'cut the requirements and we are down to one patient and they* [OTSs] *still are all having nervous breakdowns in my office'* [UE5].

University participants agreed that they *need to look at the requirements. I don't think we realise 'cos there may be a lot of other expectations that need to be done. And admin tasks, they must do a lot of admin tasks in the departments. Maybe we*

need to be a bit more clear on those and we need to remember those other expectations also' [UE4].

It is clear that students experience conflicting information about the written requirements. The Block 2 requirements in the field of mental health recommend that students do a detailed assessment but the report is a two page abbreviated format using the Kielhofner's Model of Human Occupation (MOHO) to frame the report [204]. While the practical assessment of a number of mental health care users seems not to be the issue, the associated abbreviated reports and the number of pages required created stress for and anger in the OTS participants. '*I was looking forward to Block 2. Where I could just do Kielhofner reports and learn to integrate'* [OTS6]. '*But it is like cramming the report into a small hole to see how full we can make it'* [OTS4].

The university educators are aware of this conflict about the written reports.
'But our written requirements are different to the OT-CEs. For me the MOHO form is 2 and 3 pages at the most. They [OTSs] are being expected to write more than eight pages' [UE3]. Another university educator reported similarly she had seen *'The background information only on one of the MOHOs being ten pages'* [UE5]. While the OTSs are of the opinion that '*Yes then they* [all MOHO reports] *could also be done by Friday* [If the expectation for the MOHO was 2 pages]' but the current expectation *'broke me'* [OTS3].

However the experience of the university educators is that these abbreviated reports do not necessarily take less time.
'*In their final block we are teaching a high level of integration and clinical reasoning and they must be able to select which information they are going to put into this report. So initially they still lack that experience'* [UE8] which is why reports continue to take time and thought. '*We taught them [OTSs at the learning disability clinic] to write professional reports that go to parents, [teachers] and doctors. Not a case report but a professional report. It takes them just as long, if not longer, to write a short report than a long case report because they have to get the essence and the clinical reasoning associated with what must go into those reports'* [UE5].

Students seem to have two views about the clinical requirements. They seem to feel that OT-CEs '*are stuck in the requirements'* [OTS4] but that with respect to the requirements '*it is all about negotiating'* [OTS3] and that they prefer OT-CEs '*that like the requirements that are less'* [OTS4]. While OT-CEs want to have set time schedules for OTSs to hand in and complete work they also bend the rules.
'*We sometimes, maybe you are not really allowed to do that, but we allow the OTSs to hand in [reports] today and the others on Monday because there is just no time on Friday to sit and mark*' [OT-CE1].
This creates problems for other OT-CEs because they apply the hand-in date schedules strictly '*and on time and then the minus 5% because the report is late*' [OTS6].

Students also experience OT-CE as having a rigid attitude to time. They assume that this is the result of *'having to deal with different students'.* They assume that are different to other OTSs *'I mean we are an incredibly hard working class and I am sure that they have dealt with students in the past that have gone and taken sick leave just so they can catch up... so it depends on what experience they have had as supervisors* [clinical educators] *in order to think what they expect of it'* [OTS8].

However OTSs feel '*Understanding is a big thing and it is very subjective about supervisors. They are not as understanding as they say they are*'[OTS 6].

<u>Practice versus learning</u>
Another topic that appears to challenge the quality of clinical education is the seeming confusion in the minds of the participants as to whether clinical education is solely practice opportunity/apprenticeship or a critical learning experience.

This conversation was raised as there is an idea that some OT-CEs expect OTSs to come to the clinical context with all they need to know so they in essence
'*become an extra set of hands'* [OT-CE1].

The lived experience of university educators is that '*they* [OT-CEs] *are very negative, very negative towards students when they do not have the necessary*

[Clinical] *skills'* [UE1] which often translates into OT-CEs expecting the OTSs to know and be competent in the same skills as the OT-CE.
'*What we identified was the unrealistic expectation of the OT-CEs of the OTSs: their level of competency and expectations, what they are supposed to know at the 4th year level'* [UE2].

This raised the issue of how close the student clinical load should be to that of the clinical occupational therapists and how soon reports should be completed. While it was acknowledged that in different contexts the clinical load differed
'*In some settings the qualified staff has a case load of eight*' [UE6] so is a case load of six clients appropriate for all students? '*The way it plays out in the field it may be a realistic number over a four to five week block.... but that all six clients must be assessed and the assessments written up is unrealistic. It is preposterous*' [UE3]. Some OT-CEs argued that the students' client load is too low and does not prepare them for managing many patients as is required in the mental hospitals. '*It is quite odd with six patients this year versus 60 next year and there is no OT section where you can write up the notes [assessments] two days after seeing the patient. You have to do it today*' [OT-CE1]. Students perceive this to be impossible '*but I want to see a supervisor* [OT-CE] *do this 'cos it is virtually impossible'* [OTS1].

Conversely, further discussion conceded that learning is complex and '*we must be careful with what we mean by "to learn" 'cos there are different types of learning. So students should have knowledge and we should expect them to have knowledge before they go out, but the practice of the skill that is the type of learning we're expecting in clinical settings*' [UE5].

Some skill learning was considered to be discrete and achieved in a specific year
'*Sometimes you find practical clinical competencies they* [OTSs] *are expected to master even on a second year level'* [UE2], while others are more complex and are mastered as a result of an OTS's cumulative experience of a number of clinical education blocks, and this raised the question:
'*Do we make that clear for our clinical supervisors* [OT-CEs]*?*' [UE1]. '*Maybe what we are not doing is showing* them [OT-CEs and OTSs] *how to make the clinical experience a learning experience. Because I see some of the second years,*

sometimes I feel like at the end of the prac: she has been there, she has had all this opportunity to see this patient but I don't think she has actually learnt anything. She never asked [anything] and she never came to me. To some extent you have to rely on them [OTSs] *to want to know and to come and ask, because just telling doesn't always make* it [learning] *happen'* [UE7]. '*I am wondering if we should be making it more overt that this is a really important learning experience... and saying to them at the end* [of the session] *what have you learnt today? That should be happening everyday with every practical experience'* [UE7]. But it was agreed that '*we should not tar everybody* [all OTSs] *with the same brush'* [UE7]. Some students are coming '*that is why the queues* [outside university educators' offices] *get so long because it takes so long. It is a long process*' [UE6].

Students appear to want a list of competencies that they must complete and then can tick off and say '*right now this is done*' [OTS4]. Students have the notion that once is enough practise and in the broader scheme of Clinical education next year [when they are qualified] '*they won't be sitting doing Kielhofner forms* [report *format] trying to get the wording in exactly the right way. That self-efficacy is nah nah nah as long as you can handle the patient and are competent and are going to meet your aims. I don't think it matters, the wording, it is just not practical'* [OTS6].

University educators expressed concern that '*clinicians' expectations are slightly different; it seems, to what our expectations are*' [UE3]. '*For me our written requirements are a MOHO form is 1 to 3 pages. But the clinicians are expecting eight pages.' 'Why do we allow it. Then we must go back to writing full reports. Because there is no point in allowing them to write an abbreviated report if the level of the information is the same as a full report. It is not us it is the clinicians'* [UE3]. '*Sometimes I also hear the students saying that I need to make an assistive device for the department. I need to do a board game for them. And I am thinking what the hell. No we do not have to do this to contribute to the stock of the department. These are all the little hidden expectations that they intend to gain from the students while they are there*' [UE4].

The question as to the purpose of the written work was discussed. It was agreed that it is a learning experience at integrating information about a client for treatment

planning purposes versus the 'SOAP' notes and the clinical reports qualified occupational therapists write?

'*I think somehow we are going to run into problems. Because in some hospitals they do not take proper notes and they do not write proper green cards. So if they have to role-model clinicians in terms of what to write up, they might write very little. Then we are going to have to rely heavily on clinicians doing proper note taking and writing proper SOAP notes, which in my experience does not happen'* [UE4].

What students should know?

All three focus groups discussed the knowledge students should have at the beginning of a clinical education block versus what they should know at the end of the block, as well as the learning opportunities set out as requirements to achieve this. University educators queried '*Do we make that clear to our clinical supervisors* [OT-CEs]*? Do you think that they have a clear understanding of what our students know'* [UE1]. Occupational therapy–CEs and OTSs have a copy of the theoretical and clinical curriculum as a printed book or as an electronic copy on the departmental e-OT electronic teaching platform. Students don't always take the time to read and really understand the requirements and the learning that they imply. The OT-CEs also are challenged by the requirements:

'I find that we do go through the [curriculum] book. I feel like [it would be helpful] to have an example and to work through it using the new stuff because every time I reread that thing I think, okay I have got it now. But come next year, crap, I have forgotten already because we are not using the information in such a structured format in our setting. We are not writing reports. We do 'SOAP' notes and things like that but it is not the same as when you were in 4th year. I asked the other therapists for feedback and they are also feeling like this. Then we sit, go through it and just remember it' [OT–CE3].

While the curriculum prescribes knowledge and skill that all students should have been systematically developing over the previous three years, students attain different levels of knowledge and abilities and '*some people [students] have good theory but practically they can't handle the patients'* [OTS7]. To accommodate this '*we ask students to set their own learning objectives in 4th year, but I don't think that there is a real emphasis on it really. It is often not done and there is no-one at the*

end of the week to sit down with them and say were your learning objectives for this week met' [UE7].

Students as learners

How students learn

How students learn was considered to be another of the challenges to clinical education. Each student appears to have an individual style of learning, as well as personal needs and wants which an OT-CE must identify and adapt to in a relatively short period of time.

Student participants described a variety of ways in which they prefer or have been helped to learn.

'*Actually it is nice to just learn something on your own. To feel confident that no-one is on your back and to figure it out yourself*' [OTS5]. Another OTS reported that '*what has helped me is actually to be shown what to do and then you do it by yourself and be given time to practise. Then after you have practised it they come back and watch you and say this is what you are doing wrong, this is what you are doing right'* [OTS1]. Another student stated that she preferred *'basically problem solving together [with the OT-CE]. So let's think about it together. What do you think you are doing okay and what are you not doing okay. Not them saying this is wrong or do it this way'* [OTS7]. Another stated that '*I am the kind of person that likes to be told what I am doing wrong all the time. Some people find that anal, but I like that*' [OTS4]. Others felt they learnt the most by watching '*all we did was watch and I feel I learnt so much from seeing somebody work*' [OTS 8]. Another student felt that '*you have the right to actually learn on your own, not with somebody watching because then you need to be doing something with the patient all of the time'* [OT 1]. Another OTS also felt that she learnt the most '*when she was alone for most of the prac. I learnt so much just by physically figuring out how to move these children according to the theory and when the theory didn't work how to manipulate them myself*' [OTS3].

While working independently without being observed by OT-CEs was described as being a helpful strategy for learning, this was dependant on the specific block since

'*CP is completely new, you need more hands-on* [help] *but you kind of know how to handle a physical and psych patient*' [OTS4]. This seemed to indicate that working under guidance was also a concept about which there are differing views. The student participants concurred that from their lived experience the key to clinical learning '*is about constructive feedback and how you* [as an OTS] *handle it* [OTS8]. But reinforced that '*there is no point in giving feedback*' [OTS3] if there is no opportunity to use it. '*When you apply the feedback you need extra time to implement the feedback'* [OTS 6].

Students on the other hand reported that:
'If I don't get even written feedback then I feel that I am not on the right track' [OTS7] and '*there was another practical where I had no supervision and I felt like I learnt nothing'* [OTS3].

Students reinforced that communication with their OT-CE was critical and the OT-CE must be '*listening to you and understanding you*' [OTS1]. Student participants reported that:
'*a lot of the time we're getting told what to do'* [OTS7]. Students reported finding it hard to be told what to do '*Cos at this stage of our lives I don't cope well with being told what to do, maybe that is just me. It is the same with my folks. I don't like being told what to do, well let's discuss it rather. It is also hard when you are in a situation when you have got to just fit in. It is just not me'* [OTS4].

Students through their attitude create a sense of inadequacy and therefore reluctance in OT-CEs because they portray the idea that they cannot learn from OT-CEs who are young, inexperienced and have different educational experiences. However in reality, in some contexts students have to be taught by OT-CEs who have little experience.
'*In a lot of hospitals and in urban* [public health clinical education sites] *the therapist is straight out of university and you are supervising when you have only one and half months in the working world'* [OT-CE8]. '*Students always think that you do not know enough' [OT-CE3]* and question *'if it is it fair that she should be marking me'* [OT-CE4]. *'The students have the perception already [before they have met you] that you have just started and how much do you really know. They always want to know*

how long you really have been here. It is almost as though it is really important to them that the supervisor has been there for a certain period of time [and this is equal to] *how much you can help them. When you help them the students say, they would never have thought of that and you have to say to them that it is not expected that they come with experience. That takes time. But I am so stupid I should have known that. It is like you have to play both sides of the coin'* [OT-CE3]. Students report that it is not only the experience that OT-CEs have that is important but it also '*depends on the marks that they got in the course*' [OTS3]. The young OT-CEs experienced that their limited experience was a restricting factor '*I do think that a student is always going to learn something but I think you can always give more*' [OT-CE3]. '*Students know that they can only grow as much as the supervisor is able to help them grow. Students can't exceed them*' [OT-CE8].

This attitude that the students have in the clinical context has been described as '*arrogant*' [UE4] and '*a generation thing'* [UE6], and while their learning is important and a personal responsibility, in the clinical context is about the patient and '*they are the priority'* [OT-CE9].

The need for students to take personal responsibility for learning was echoed in all three focus groups as was the OTSs external locus of control.
'*If they do poorly then it is your fault because you did not help them. We are ultimately being held responsible for their results. And seriously* [the OT-CE/University educator] *can only do so much; you [OTSs] must do the rest* [UE4]. University educators and OT-CEs get worn down by the OTSs '*the clinician* [OT-CE] *will say but I have told them a hundred times, why can't the students get it. Do you think just by saying it or giving a hand-out or something is how they learn, we make them lazy. It is also just easy to give them the answer, so we are also lazy. It is hard work to get that clinical reasoning that they need to have and you are exhausted with this individual'* [UE6].

Thus the students' attitude and their demands compound the challenges to clinical education.
It is all about the marks.

The OT–CEs and university educators believe that quality of clinical education is compromised by the OTSs focus on the marks that they attain, rather than the learning that needs to be mastered.

'*The students very often have a mark focused outlook on life and it inevitably affects their learning experience*' [OT-CE9]. '*You know like it is all about the marks, all about the report and I understand that it is important and you have to grade them. But hello somehow there [needs to be] a mind shift that can change them to understanding the learning opportunity that it is. You know instead of being so focused on "what did I get for this report" like just use it to learn. I feel that the essence of learning and that the value you can gain from clinical prac is lost because of all the pressure being placed on the marking*' [OT-CE9]. One OT-CE reported that:

'*I have yet to put a mark on the report. I merely tell the student if they pass or fail. Like we give them feedback and tell them what they have done well or that they passed but we don't tell them how much they actually got. Even if they ask, we tell them that the focus is on actually learning and if I say you are doing well then that is what it is, you are doing well'* [OT-CE1].

University educators also perceive that clinical education is very mark orientated.

'*At the moment [clinical education] is very focused on passing or failing a block, marking everything and everything gets marked for this and this, rather than a relationship between an experienced and inexperienced person that allows them to build their skills whether it is possible or not but allows support for students rather than being punitive, so it is a carrot rather than a stick*' [UE 5]. In support of this '*It seems to me that from day 1 it is all summative feedback there is so little formative experiences and opportunities. All the MOHO's are marked [and are handed in at once] and they fail them and there is no opportunity to practice and get feedback and then submit the next ones for marks. They need some formative feedback before they have a summative evaluation'* [UE3]. The focus on marks and the lack of formative opportunities was concerning to the university educators as that was not the intention:

'*I don't know whether it is us that do this necessarily but it may be something of a perceived expectation'* [UE3] and *'the mark structure* [perhaps] *is demanding that'* [UE 5]. '*We need to go back and evaluate our expectations'* [UE3]. We need to

consider '*why can't we have unmarked patients*' [UE7] and what would be the consequences for learning and quality of treatment to the patient if it were not. Students state that:
'*marks need to be there*' but also query '*the fact that every single thing is marked, every report is marked'* [OTS4].

Students on the other hand perceive the marks to be the primary factor driving their activities. They hold this view because they perceive:
It is all about the marks. The pressure we are under if you fail a case pres you fail the year, it all falls on one thing. I think your marks determine your stress levels not the amount you [you have to] *learn'* [OTS8]. Not all students reported the marks as being their central concern. One student participant reported that
'*I changed my view of my marks when I started this year because last year I was well I was quite a high achiever. I pushed myself. This year I am just thinking oh well I am not going to kill myself. All I need to do is pass, as long as I am going to make myself the best occupational therapist I can be. It is not reflective of somebody's subjective opinion of me, because what you need to do is decide for yourself and work on it. So I mean I still do my best but I am not so bothered about getting 70s or 80s. It is just about getting through the year and being a competent occupational therapist. So for me it is not important. So if I get 50 it is ok*' [OTS6]. Another student contradicted what she had said earlier in the focus group and reported that although she generally
'*feels good when I achieve well but at this point I am not so concerned about this* [the marks]*. I feel that I am not achieving my best and that I am capable of a lot more but I just can't do it. At the same time you realise that you are not all that you think you are. It is good to get some negative feedback and realise that you need to work hard to get where you want to be and it's not easy the whole way*' [OTS7].

Students also view the written marks as being the prime driver of all other marks and therefore these are the most important as this is what OT-CEs manage to do.
'*It's like you don't get to experience that much of the practical as you would like to because you are so stuck on the written w*ork' [OTS6]. The reason for this is that '*Most of it is written feedback you know'* [OTS5].

Students also reported feeling resentful that OT-CEs do not acknowledge the effort students put into their written work which they believe is not reflected in their marks.
'*It is also what you put in* [to your learning]. *I mean how long does it take you to write it all up now, umpteen million hours and you put in all this effort and it takes them ten minutes, maybe five minutes and they have marked what you have done in 15 hours in ten minutes. It sort of doesn't justify the amount of work that you do for it* [OTS8]. Contrary to what OTSs believe OT-CEs report that they do take time *'to do it justice you need to spend time on marking'* [OT-CE9].

Concerning to both the OTSs and the university educators was the question
'Do mark variations relate to the placements and that students cope poorly because of the placements?' [UE2]. While this was not thought to be true of all placements, the lived experience suggests that it does happen:
'It comes to this, how students do depends on whatever placement they are in' [UE4]. University educators reported that
'*You know we brought in all these marking rubrics'* [UE4] to try to overcome this problem but a downfall may have been '*but we did not give an example*' [UE6]. Some concern was also expressed that '*the requirements are not entirely measureable in the way supervisors can say if it is four pages then it is perfectly adequate*' [UE7].

Students' clinical marks are generated from the OT-CEs observations of their Clinical education and professional behaviour. The form used to record this is colloquially called the 'ABC form' by the OTSs and university educators as the rating scale uses a Likert-type rating scale to score and extensive list of clinical competencies where the 7 point descriptors use the letters of the alphabet to distinguish between them.
'*I think the ABC forms are like the devil*' [OTS7] *and they make you walk on eggshells the whole time about everything. You know if you are stuck in the traffic then you are freaking out because you are going to be late. You know that they will mark you down for professional behaviour. Even if you are late and it is out of your control, but I think everything is considered. You have an ABC mark and every single thing that you do is marked' [OTS7]. 'That is true. I did say something and sure enough it was there on my ABC form'* [OTS2]. Another student commented '*At*

least they saw you. I had an ABC form that was filled in by a person that had never seen me' [OTS3].

Students report making decisions about their learning based on the value assigned to certain competencies on the ABC forms.

'*It all comes down to the ABC forms at the end of the day. I can remember last year eventually you have to weigh up if you are going to get a C for handing in* [a report] *on time or hand it in late and get a better mark and because the workload is so great and that is what we have to do in the end'* [OTS2].

Students perceive their marks to vary from one placement and clinical education block to another.

'*You also can't use the one report you got a first for. I mean you look at how you linked everything and use it for the next block not copying and pasting but it looks exactly the same thing and the supervisor says it is wrong'* [OTS3]. *It is another thing about different supervisors. You go on one prac and they give you one type of feedback and they tell you this is how you do it. This is how I want it. And then you implement that on another field and they ask you "what is this?" So it is very hard for me to learn in a consistent manner because you are just doing things to please your supervisor. And even if there are things that work for you, you don't do it because they are giving you the marks. And you can't really transfer what you have learned from one prac to another because every supervisor wants things in a different way'* [OTS6]. '*I agree with that. My one supervisor gave me A for my written work. It is just perfect and then the next one says that it is not enough. So we need to get some consistency of what is expected'* [OTS1]. University educators are aware that this is the lived experience of OTSs and commented that OTSs forget that '*the goal posts move between blocks'* [UE2] and that clinical cases differ in complexity and clinical reasoning needed.

Students also perceive that their marks are very subjective.

'*I also hate that it* [marks] *are so subjective because it depends on whether the person likes you or not. Because if they don't like you you get a crap mark, if they like you get a good mark. I certainly don't think it reflects the true performance on how you did on the prac. I don't think it is fair at all. There should be more criteria*

that you should stick to, to be less subjective and more objective in marking' [OTS6]. Students have always been told they can query any mark and request a justification.

'*I can be quite blunt sometimes like if they give me a mark and I don't understand that then I want to know why and I want it explained to me, what is wrong or whatever. So for me it is hard and if you challenge them then they think you are not respecting them and then it appears on the ABC forms. so you just suck it up and say it is fine. Meanwhile they do not know how you have performed previously on other pracs and what you are capable'* [OTS6].

Poor Coping Skills

The poor coping skills of OTSs were identified as challenges to the quality of clinical education. These poor coping skills were identified by all three focus groups. Characteristics of poor coping skills were identified as poor planning and poor management of time resulting in increased stress and then not being able to manage the stressors resulting in a periodic emotional melt-down.

'*When I look at some of the students that we have seen that have been stressed and are not coping it is 'cos they are not handing in their work [treatment plans]. You can sometimes see that they know what they are talking about but their planning [is poor] and they are just not getting to what they need to do'* [OT-CE 7].

'*Sometimes I think that it gets so overwhelming and the student reaches the panic point. Just acknowledging that you see that they are stressed'* helps. *'I find it helps a little to say yes 4th year is hard. It is okay to feel stressed and not coping but they need to speak to somebody'* [OT-CE9]. *I have had lots of students who come to me and say "oh I had a fight with my boyfriend" and I'm like "Okay what did he do? What are you going to do now and how is this going to help your patient?" And they look at me "What's it got to do with my patient?" I say "exactly it has nothing to do with your patient [but he needs treatment]*' [OT-CE 3].

Clinical educators recognise that OTSs handle their stress differently and the stress may have consequences for professional behaviour.

'*Some break down and cry. Those are easier to handle because you know they are stressed. But there are others that just stay at home or do not hand in their work and maybe that is how they cope. But it does put a lot of strain on the department*

because you can't have somebody who is psychologically unstable treating somebody who is psychologically unstable. That is just impossible. Then we should be removing the student and that is my opinion in this instance' [OT-CE1].

Although OTSs desire feedback on their performance they experience this as a considerable stressor.

'*You are as nervous as hell anyway about what you should do and it makes you more nervous and more anxious as they don't step in when you make a mistake and they only tell you what you did wrong afterwards. And also I think that instead of getting negative feedback it is so important that you focus on what you did right. "Keep it up" rather than saying this is what you did wrong'* [OTS7]. Students find receiving no or limited feedback equally stressful

'*if there are only two comments* [I kept wondering] *where could I have possibly gone wrong*' [OTS2].

Students find the work load to be completed in a relatively short period of time stressful. Some of the university participants consider that learning takes time and although students *have six opportunities to learn they are completely stressed out*' [UE6] by this. A lower number of opportunities may in this instance be more effective to the learning process. Some OTSs echoed the same sentiment:

'*also I find with me I like doing things properly. I would rather do one Kielhofner [Report] and know that I am doing it right and spend hours working on it and submitting it and saying okay I know what I am doing. I am on the right track. This is what I am thinking. But I can't because I am thinking I have six to do. I have felt that I have not been able to do anything to the best of my ability because I am so worried about the workload and getting them in on time'* [OTS7].

The OTSs' stress also affects the OT-CEs.

'*When the students are stressed it's especially their unpreparedness* [that] *can add to our stress'* [OT-CE 5]. Our OTSs *'haven't been very prepared students and they haven't yet written up their green cards. Yesterday they were not feeling well and for me it was quite difficult because I had all these meetings to attend and I had to try to arrange for other therapists to make sure the patients get seen* [but there was no treatment record as the green card was not written up] *and the whole department*

lands up in a bit of chaos' [OT-CE3]. Clinical educators observed that towards the end of the year the OTSs are particularly stressed.

'*They take days off. I don't know if it is the end of the year and they are worn out or they are stressed because of the exams. I don't know what the story is but they are battling'* [OT-CE4]. Clinical educators acknowledge that:

'*I think that it is important for us to manage this stress. In some ways we need to look beyond how they stress us out because they are not learning anything and what kind of therapy are they doing*?'[OT-CE7].

In contrast to this was the notion that occupational therapy practice is a complex and emotionally demanding course that requires OTSs to be creative problem solvers who continually need to think out of the box. The question was raised that perhaps the expectation of good coping skills was unrealistic in terms of the OTSs life experience and their age.

'[As an OT-CE] *I'm experienced and I can handle a lot of things but these poor fourth years are barely 21 years old and we want them to be life-long learners, self-determined adults, have lots of coping skills and not throw their to*ys' [UE 8]. A university educator who had had international experience commented

'*If you look at some of the courses in the USA and Ireland you have to have completed another course* [before admission to an occupational therapy programme]. *If you look at these [graduate] students versus those which are straight from school they are more mature and handle the stresses and cope*. *These are young kids that we are dealing with. They are not yet out of their parents' home and they have been protected and we are expecting them to function like adults right from the word go* [UE4].

Student stress levels are high and it is thought that if these could be managed '*the most important and difficult concepts* [that students struggle with] *will fall into place so much easier*' [UE8] and would be less of a challenge to clinical education.

<u>Time</u>

The demands on time and the limitation of time was the final code identified as a challenge to the quality of clinical education. All three focus groups raised issues

around time: the cost of time and the importance of time management in the work place:

'*..actually that was what I wanted to say in private* [practice] *you know, time is money. The patients pay your salary. And in government whether you are here or there you still get paid'* [OT-CE1]. But within both health sectors '*you only have limited time. We only have certain times we can see patients 10 o'clock to 12 o'clock and then one to half past three. If you don't manage your time well, you will not see all your patients and you will not be able to write all the notes and all those kind of things. So you have to manage your time. We struggle with students especially with time managements'* [OT-CE1].

Participants in the OTSs' focus group perceived the occupational therapy education programme to be totally consuming of all of their time: '*you are expected to live, eat and sleep occupational therapy* [OTS6]; *'our lives are occupational therapy and everything comes after. It should not be like that'* [OTS7].

Two sub-codes were identified (see Table 4.3).

Time to learn

University educator participants acknowledge that learning takes time and probably more time than is available if you wish to achieve excellence.

'*Maybe we are not giving enough time for integration of those very difficult concepts*' [UE8] and learning '*is a long process'* [UE6].

Students on the other hand, feel pressured to learn within time constraints.

'*It's too short a time period, as you get into the prac you realise it is Friday of the last week and you have to go. You are just getting into the swing of things and then time is up'* [OTS3]. The OT–CEs have sympathy with the OTSs *'I understand it is like starting a new job every four to five weeks. Like for me that is how I thought about it. You've got to go to a physical prac and you have just come from psych and you have got all this psych information in your head and now you need to change it back to physical.... so I think that ja, it is hard on them. We were all there'* [CE5]. '*My sense is that actually if they [OTSs] don't do that switch in their heads they really struggle. Especially with the activities that they come up with '*[OT-CE1].

Time management was identified by the OT-CEs as a specific problem for OTSs.
'*So I think you know that we struggle with students especially with time management'* [OT-CE1]. Clinical educators perceive poor time management
'happens most often in students who are struggling. You know time, they don't have enough time for their written work and they are only worried about getting their written work out and meeting the requirements of the prac. Sometimes they leave things behind or something may have happened in their home environment' [OT-CE 1].

In spite of acknowledging the time constraints with the clinical learning programme, there was a sense that students time to learn is compromised by their not taking responsibility for their own learning by not understanding what needs to be learnt and not appreciating the time that learning takes and the number of repetitions of learning activities required to ensure reasonable competence.
'*I asked a 4th year student last week what the requirements were of the clinical block [she needed to complete]. No nothing in there*...'[UE8]. Professional learning and particularly skill learning:
'*It* [learning] *takes time. They [OTSs] become dependent because they want to ask and be told because they want to do things quicker. It takes time to really* [learn to] *solve a problem and they need time [to learn*] [UE 6].

The inability of OTSs to manage time is being manifest in many ways: not being able to use the time in the day effectively to meet the demands, avoidance, inflexibility and spending excessive hours working but not achieving the desired outcomes.
'*And also they do not use their time constructively. They can only see patients with us from nine o'clock. They should be using their time from seven thirty to do something constructive, prepare, speak to the supervisor, set up a treatment plan or even writing some of their reports. That is fine, but use the time constructively. Sometimes you do not know what they do or where they go'* [OT-CE7]. '*With us the place is so big they just [deliberately] disappear and you spend time trying to find them'* [OT-CE1]. So to assist in time management the OT-CEs get the OTSs to hand in a schedule for the whole week with all time accounted for '*but it is like they don't get to really do what they should. It's usually in the morning that the time is not*

really spent well [OT-CE1]. '*I find that with time management that they [OTSs] are not really that adaptable so they get shocked when things happen. If they planned to do something at 9 o'clock and the patient is discharged, then for that hour they do not know what to do and in that time they come when you are busy with a patient and ask what must I do, what must I do? And I am thinking I can't help you right now. So I don't know if you can teach someone time management or adaptability'* [OT-CE4].

In an attempt to help the student manage their time the university has also '*cut the requirements and we are down to one patient and they are still having nervous breakdowns in my office. But we need to look at the soft skills... things like time management... I am not sure how one goes about changing this underlying level of sub-skills... and I think that this is one of the underlying problems'* [UE5]. In acknowledging the time management problem the question was asked*:*
'But whose responsibility is it to teach soft skills. Do we not expect students to come with these soft skills?' [UE3].

The view was expressed that this poor management of time
'*Maybe experience. Maybe it comes down to role-modelling again. Some clinicians manage their time really well, some don't, some are forced see patients and others are maybe having a quiet day. I don't know*' [OT-CE9].

Students continue to report not having enough sleep and that '*they go to bed at 5 o'clock'* due to work load [UE 8]. While staff acknowledge that it takes OTSs time to think and reflect in order to learn OTSs need to learn to pace themselves, work consistently and not leave critical work to the last minute as quality work invariably takes much longer than anticipated. As a strategy to overcome the time pressures students resort to taking short cuts
'*But when I write I have to think and that takes time and I do not have time so I just cut and paste... and hope it is ok'* [UE4]. This results in students plagiarising their own work and that of others, which creates difficult ethical issues.

Students on the other hand report that:

'*You do not get time to practically do what is needed [therapy], everybody gets worried about the marks and the written work and the written work [repeated for emphasis] and you have sleepless nights and you get there feeling like death and then you have to spend time with patients and you just can't implement stuff because they are stuck on the written side of things'* [OTS 6]. Students' perception that the written work is central to their overall marks may be responsible for them not being open to more clinical learning and the way they utilise their time during the day.

'*We had these students in the last block who were more interested in doing their case pres and doing their reports and they just sit in the office by the computer. We told them to come and watch, come and see as we were treating [interesting] patients... We gave them so many opportunities to watch us. I think that they see it as extra work when they have to do observing and learning'* [OT-CE4].

Interestingly OTSs also seem not to recognise that occupational therapy is a process that starts with a thorough assessment which directs the treatment. While the written report can be reduced, the assessment process should always be excellent and not compromised by time or assumptions.

'*You are spending all these hours on assessment when it is actually a treatment block and you almost wish there could be some things that you say right now that is done and take it off the list, instead of starting every single prac from scratch and reports from the beginning [with an assessment]'* [OTS4].

Students report that in this qualifying year the time pressures are '*very different to the 3rd year'* [OTS4]. They feel continuously time pressured throughout all blocks by the need to pass the block and the consequences of failing and being required to do extra time (six months) to ensure clinical competence. Students perceive that there is no time for crises or life outside OT. '*There is no room for mistakes. I mean if you go through a bad time in your personal life and you have a case presentation nobody needs to know, nobody cares about your personal life. If you stuff up, you stuff up, that is the end. You will repeat. There are no second chances..*' [OTS7]. *'I think that we are the only group of people that all our status updates on BBM and Face-book are about occupational therapy and what we eat every day. I think that my friends have lives and I think that this is so cool. Our lives are occupational*

therapy and everything else comes after' [OTS7]. '*It is terrible. We are teaching people to be balanced individuals and we can't even be like that ourselves. I think it is being totally hypocritical and contradictory'* [OTS6]. '*Life happens and there is life outside occupational therapy and we also have events that happen in our lives. We have weddings. We have family functions. And I don't think a lot of them* [university educators and OT-CEs*] don't realise we do. They need to make allowances for these things'* [OTS7].

Time to help students learn

Students perceive OT-CEs to be busy and there isn't time to help them.

'I noticed on one of my pracs where the supervisors are so busy and they really don't have time for you. It is either very short what they get to see or they don't. Most of it is written feedback you know' [OTS5]. '*So we often get feedback on written work and we don't get any feedback on the practical work and on how we are handling the patient... and sometimes they base our marks on the writing and not the handling of the patient because they do not see that part. It is all about handing in the reports and treatment plans...'*[OTS7].

One of the OT-CEs reported that this was common practice in her setting *'What we find is that we just write feedback, maybe some really detailed feedback, and give it to them [OTSs]. So they can choose to ask, so those that don't know...or understand don't tend to ask. I don't know if that is the best way to do it. Especially when we are busy, we find that we can't sit there for an hour. Patients unfortunately get priority'* [OT-CE9].

All OT-CE participants reported that student education related activities are time consuming and impinge on their Clinical education which

'is very difficult in a busy department' [OT-CE 4]. *'When students do their case presentation it takes the whole morning so that means that the seven patients that I would have seen have to be seen by the other therapists...'* [OT-CE4]. '*I think that it really takes long to give feedback when you have other things to do and then you have to watch sessions and groups and give feedback and mid-evaluations and mid-block cases and all of those things. I mean especially if there is more than one student then you are out almost the whole day or the whole morning'* [OT-CE1].]. Another OT-CE stated '*I am the only OT, so if I am spending time supervising all the*

students or giving them feedback in the rest of my department nothing can happen. So I have to schedule my own things where it does not [negatively] affect them' [OT-CE6]

Clinical educators also report that:
'marking of written work, I also find is very time consuming' [OT-CE7] which OT-CEs '*end up taking it home. I don't have time during work'* [CE 9]. Another OT-CE participant reported:
'I need to do a lot of preparation before the students arrive because we [work] on an out-patient basis. I need to make sure that when I look for patients that two of them can come because i need two of them because there are two students. That is very time consuming' [OT-CE6].

On the other hand students have a need for practical guidance to facilitate their learning which raises their anxiety and anger when it is not readily available or planned and not received.
'*Also with them [OT- CEs] making time like you guys said because otherwise you feel in the way because you nag them, because you do not have a certain time allocated when you can see them and you go and nag them every 10 minutes because you are so unsure of yourself because you don't get the time when they can see whether you are on track and where you are not on track'* [OTS6]. '*When I was on prac I would schedule feedback sessions in advance, a day or two in advance, and I have sat and waited and the supervisor did not pitch. It is like this ghost that gives feedback on work* [that she did not see] [OTS4].

However, OTSs believe that quantity and quality of written feedback is helpful in learning.
'*Actually the war zone of comments on the paper at least we can learn a lot from that, seeing exactly what you should have been doing as opposed to feedback....where there were only two comments on it* [a report she failed] *where could I have possibly gone wrong?'* [OTS8]. *' I mean if I don't even get written feedback then I feel less confident that I am not on the right track, if I am not then I need to know how I can change it'* [OTS7]. One participant reported that for her,

feedback was motivational. *If you receive positive and negative feedback it leads to some motivation to change'* [OTS6].

University educators also reported being pressed to find sufficient time to help students learn in the clinical situation, where time needs to be divided between students who all have different educational needs and abilities. University educators view giving students input and feedback as a critical part of their job and if '*there is insufficient time to do this at the clinical site it is done on campus, with long queues of students'* [UE3] waiting for individualised feedback on their Clinical education. This raised the question as to whether this practice in the junior years was developing an unrealistic time intensive expectation of clinical education in the final year and '*whether there is anything that we* [academic staff] *are doing to foster learned helplessness'* [UE3] which OTSs seemed to have developed with the continuous need for input from the OT-CEs. One participant felt that it may be '*because we entertain too much of their fears'* [UE3] while another stated that *'How can I put this? Sometimes we* [academic staff] *anticipate problems before they* [OTSs] *even bring them in. Let's say for instance you talk them through [clinical situations] to see if there is problem a, b, or c and you haven't even provided them with the opportunity to go and think and solve it for themselves because I said* [to them] *e-mail me or come to my office. So already it is like I am anticipating that there will be a catastrophe, so why should a student go and do it for herself if she knows that I am going to give her the answer...'* [UE2].

Since clinical education is so time intensive, concern was expressed that we may be *'supporting the weak students and expecting the strong students to fly. They* [the strong students] *are probably not getting the same amount of input or attention'* [as the weak students] [UE 5]. But *'they all need feedback, they all need affirmation or minimal correction but what if you have twelve students and ten are weak, the two students who are strong, I can't say you forget about them but you actually place them on the back burner, not completely, but they will cope whereas you have to attend to those that need the most help.*'[UE3].

However, from a student perspective, having time with their OT-CE in the first week sets the tone for the learning in the block.

'*One of the things that worked amazingly well in one of my pracs is that ..on my first day and I had three or four hours with her* [OT-CE]. *Together we worked out our learning objectives and we determined together what would be done for the rest of the prac. That made it so easy and we had the whole timetable. Three or four hours on the first day is a lot of time and most supervisors really don't have that time but it does hel*p' [OTS 8].

4.10.2.2.3 Interpretation and meanings of Theme 3: 'Grapevine'

The third and final theme **"Grapevine"** is an in vivo theme named by the metaphor that was used by the participants [197] to discuss and describe the covert communication network within each group that transmits information within each group and to the other groups both verbally and non-verbally. Three codes emerged from the data and the codes and sub codes within this theme are listed in Table 4.4 below.

Table 4.6: Theme 3 'Grapevine'

Theme	Codes	Sub codes
Theme 3: 'Grapevine' (In vivo)	Student grapevine is alive, well and strong	Labelling of OT-CEs and sites.
		Reputations die hard.
		Rumours add to the stress and anxiety
	University educators are not immune	Information source
		Labelling of OT-CEs/ students
		Stereotyping students
	OT-CE grapevine is equally active.	Labelling of students
		Do we want them/can we keep them out?

Participants felt that a 'grapevine' exists within each stakeholder group. This grapevine was described as '*very influential'* [UE5] and '*dangerous'* [UE7] as it transmits negative information more commonly than positive information. This negative information *'biases beliefs, perceptions and attitudes' of individuals and places.* This negativity is also difficult to shift *'once you have a reputation'* [UE7]. These perceptions also influence the perception of the quality and effectiveness of clinical education by some OT-CEs and in some sites.

Three codes were identified within this theme one for each group of participants.

Student grapevine is alive, well and strong

The data revealed that an informal and super-efficient student network '*is alive and kicking'* [UE3], and *'strong and influential'* [UE5], and conveys information between students about each other's experiences, perceived and actual performance and workload, OT-CEs and clinical education sites. The student communication network proliferates information rapidly, sometimes instantly, between friends and class mates via the social network systems like 'Facebook', Twitter, 'BBM', 'WhatsApp' and class e-mails. This network is particularly efficient in promoting negatively biased attitudes and opinions about OT-CEs and clinical education sites. '*It is like that Placement Z thing. Students work each other up and decide* [the OT-CE] *is terrible'* [UE3] and '*negative reputations die hard'* [UE7].

Students are also aware of the negative effects of the grapevine and some consciously try to have an open mind and be objective when they are placed at a clinical training site or with an OT-CE with a reputation.

'*So you go in hearing horrible rumours about the person and you go in thinking I am going to make a good impression and I am not going to take notice of that and I am going to have a good time'* [OTS1]. Other students after a clinical education block reported that:

'*I expected* [the clinical placement] *to be so bad but it was not as bad as my expectation'* [OTS2] but this does little to change the perception held within the class of the negative reputation that has been developed and handed down over time and from student to student and class to class.

The student grapevine also works effectively between the different years in the student body.

'*This year's 4th years are telling the 3rd years you are going to die, absolutely die, and regardless of the requirements you are going to die*' [UE 4].

University educators are not immune

University educators are also not immune to the grapevine which seems to be both overt and covert.

'*It is amazing how* [students perception of an OT-CE and placement] *rub off on the lecturers. [I] mean people are saying things that are horrible, they haven't seen it but it has such power*…' [UE9]. The negative effect of the grapevine results in university staff believing and sharing student reports about practices in clinical contexts.

'*That is absolutely what I mean, what I am saying is what I am hearing from the students'* [UE8].

The power of the grapevine is evident in the labelling and stereotyping of students by both the university and OT-CE networks: good students and weak students. Although it is departmental policy not to bias OT-CEs perception of individual students by sharing student's previous performance, this may be covertly conveyed by placing only strong students at certain clinical education sites because the situation is perceived to be complex and demanding, or placing students at certain clinical education sites because they are perceived to need nurturing and more input from a OT-CE.

'…[I] have a struggle to place students because I end up by thinking ok I have seen good ones [OT-CEs] here so this is a good placement for this struggling OTS. You will go with that [OT-CE], that [student] just won't cope because this [OT-CE] does very little. So you end up by thinking geez am I being objective here….'[UE 4].

Not all OTSs agree that their past performance should not be shared with OT-CEs.

'*I think it is important for them to know* [how you have performed previously and what you are capable of] *because they do not know you from a bar of soap. It depends, it can go both ways because sometimes if you are a bad student it is good to go with a clean slate and for them* [OT-CE] *to have an open mind than think this is a failing student and just fail them. But they also do not have a clue about you and then one stuff-up in a treatment demonstration that did not go well sets the tone for the rest of the prac 'cos that is the level at which they think you function'* [OTS6].

<u>Clinical educator network is also active</u>

From discussion in the OT-CE focus group it is obvious that the grapevine exists and is used.

'I have been discussing it with a lot of supervisors from the different hospitals... And I have been talking to them in Placement X' [OT-CE4]. While OT-CE participants acknowledged that they talk to each other about student related issues there is no doubt that the grapevine warns them of weak and problematic students long before they arrive.

4.10.3 Concerns that need Immediate Attention

At the end of the focus groups participants were asked to independently identify the clinical education issues they believed needed urgent attention (See 4.5.2: Closure). Table 4.5 records the 30 concerns raised which can be categorised as follows: Managing student stress and the factors that contribute to this; OT-CEs being good role-models and keeping their knowledge current; OT-CEs being better trained to use the clinical education process more effectively; and the clinical curriculum needs to be reviewed making the clinical education more overt and manageable by all stakeholders.

Table 4.7: Clinical Education Concerns Needing Attention

Students	**OT-CE Focus Group**	Students should manage stress levels and the consequences of this on own performance and client care. Students to be made aware of the support systems available to them. Students should manage time. Make students aware of the OT-CEs time constraints.
	Student Focus Group	Student attitude to a block determines the outcome. Students need to learn to manage their lives outside OT so that it does not impact on their clinical performance and marks. Role of marks: play a big role in the stress levels of students.
OT-CEs	**OT-CE Focus Group**	Being a good role model (clinically and ethically) will help you and the students develop their professional identity. OT-CEs managing the learning process and [acknowledge] students' need help with the workload. OT-CEs increasing own knowledge by keeping up to date with current theory/trends/best practice. OT-CEs should give more attention to evidence based practice and research in clinical settings. Experience is the key to effective clinical education. OT-CEs should consider the client's perception of students more.
	Student Focus Group	OT-CEs should volunteer, as not all clinical OTs have the nature and patience to be OT-CEs. OT-CEs should be approachable: the more approachable they are the better the clinical experience, the feedback and therefore the learning. Many OT-CEs are not approachable. Communication is important between OT-CEs and students to encourage understanding, for defining expectations of both OT-CEs and students. Set times for feedback should be negotiated on the first day. OT-CEs should be supportive of the fact that students are still learning. OT-CEs should see each student as an individual, not compare them to others and not see them as a generic student. Should therefore, adapt and individualise the requirements each week and be flexible about hand-in dates according to each student's ability. OT-CEs should be more hands-on by demonstrating treatment and being willing to work with and treat clients for the benefit of the student's learning. OT-CEs must give feedback to enhance learning, should be timely, accurate and give opportunity to improve, should be constructive and include both positive and negative elements, should indicate clearly what has to improve and what needs to be done to improve, should be given on all aspects of work : written, clinical and verbal. OT-CE evaluations (marks) should be based both clinical and written work and should be reflective of performance throughout the block, not on isolated incidents and not just the end of block case presentation and treatment demonstration.
	University Educators Focus Group	OT-CEs should be better trained not in the requirements but in the core educational components.
University Educators	**OT-CE Focus Group**	University must provide more detailed workshop at the start of each year for new OT-CEs. University must provide training/ preparing OT-CEs to mark students. University must explain the changes in theory.
	Student Focus Group	University must revisit the requirements so that the workload is manageable. Hand-in dates of reports should be reviewed and spread out. The discrepancy between the university requirements and the OT-CEs understanding of the requirements should be addressed.
	University Educators Focus Group	Department needs to relook at the curriculum to determine the core knowledge across the 4 years: set requirements accordingly making the learning overt; better correlated with placement demands; also to review the time and stress of students and staff. University staff must build good relationships with, support the OT-CEs in their role, and mentor them to facilitate the students learning. Academic staff to evaluate that their support for students is not making them dependent/lazy learners.

4.11 DISCUSSION

This qualitative study focused on the clinical education of final year OTSs which forms the basis of professional practice and life-long learning [84, 205]. Clinical learning is considered complex learning which results in a relatively permanent professional behaviour not only from 'doing' but also from reflecting on and learning from the doing [205]. According to Jarvis many factors influence complex professional clinical education, and that consideration should be given equally to the context in which learning takes place, how the learnt information will be used now and in the future, the learning abilities of the individual student, the teacher, the learning experience and how this transforms the learner. Thus consideration of the essential elements for professional learning is required: understanding of human teaching and learning, and professional competence and experience, and then bringing these elements together in the clinical education context [60, 205, 206].

4.11.1 Demographics of Sample

The twenty-five participants all had lived experience of clinical education either in providing it or receiving it. The sample was typically small, consistent with a qualitative design [176]. The sample was all female. While it was a concern that the voices of the male students were excluded, they represent a very small percentage of the student body (6% in this class but in the three subsequent years there were no male students) and should not have influenced the results greatly. This is consistent with the number of males occupational therapists internationally [95].

The student participants were all in their final year close to the final examination they were therefore, considered 'information-rich' and appropriate for this study of the phenomenon of 'clinical education' in the context of this degree programme [207 p207]. Although the participants were all purposively sampled different procedures were used to select participants that provided maximal variation within the limitations of the ethic clearance [207].

4.11.2 Definition of Clinical Education

The results of this component of the study confirm the problem stated in 3.2, that there is a lack of clarity and consensus regarding clinical education as a concept. As a point of

departure a common understanding by all role players is essential if quality clinical education is to be provided.

Although there were many similarities in the elements generated by the participants, most items listed were procedural (what should be done for learning) and relatively few considered how the clinical educational process occurs. The assumption that a concise, neat and tidy definition of clinical education was achievable was probably unrealistic, in view of the complex and multi-factorial nature of the concept. This is supported by the view of Javis who reported that until those involved in the clinical education of students fully understand the complexity of human learning and all its elements, it is difficult to formulate a comprehensive and precise definition as these the learning and education processes must complement each other [205]. By the same token, the occupational nature of occupational therapy is difficult to define in a precise and succinct manner [208]. The occupational therapy profession is in a process of dynamic re-conceptualisation around the central complex phenomenon of 'occupation' and the role it plays within occupational therapy and health, resulting in a shift from a biomedical approach to health to a more occupation-based approach [21, 209]. Rogers describes the many challenges facing occupational therapists, which include OT-CEs, in providing occupation-based services in medical-based settings, resulting in adjunct techniques and purposeful activities being the predominant intervention rather than occupation–based interventions [210]. Thus the accurate and succinct combination of two highly complex and multi-factorial process into a single definition was difficult, resulting in the listing of elements only.

Figure 4.9 defines the essential elements of clinical learning and education using the elements reported by the participants as well as the essential elements of learning described by Jarvis as well as views of other authors discussed in Chapter1.

Participants described clinical education as a collaborative process or partnership between all three groups of role players with students responsible for there their own learning (the aspects marked in orange on the diagram) but that on site OT-CEs responsible for the educational aspects (marked in purple) linked to the block requirements and exit level outcomes (marked in red) which are defined as part of the total curriculum and are defined by the university staff and reflect profession entry skills and not expert skills [1, 87, 94].

4.11.3 **Quality of Clinical Education**

The collective views of participants in this study described clinical education on the Wits teaching platform as having 'pockets of excellence' but also having considerable challenges to the quality. The challenges to the quality of clinical education that emerged were consistent with concerns raised by the OTSs during the routine HPCSA accreditation visit that initiated this study (see Chapter 2: 2.3). The participants were also of the opinion that not one single factor supported excellence or challenged the quality but a combination of many factors that interacted together. This supports Javis's view that professional clinical education is multifaceted and complex and understanding the interaction of factors was critical to success [205]. The lived experiences and participants perspectives on the factors which influence the quality of clinical education have assisted in deepening the understanding of the factors which affect all role players in the clinical education context. These have served to clarify the difficulties experienced by each group separately and collectively so as to begin consider the factors that need to be addressed.

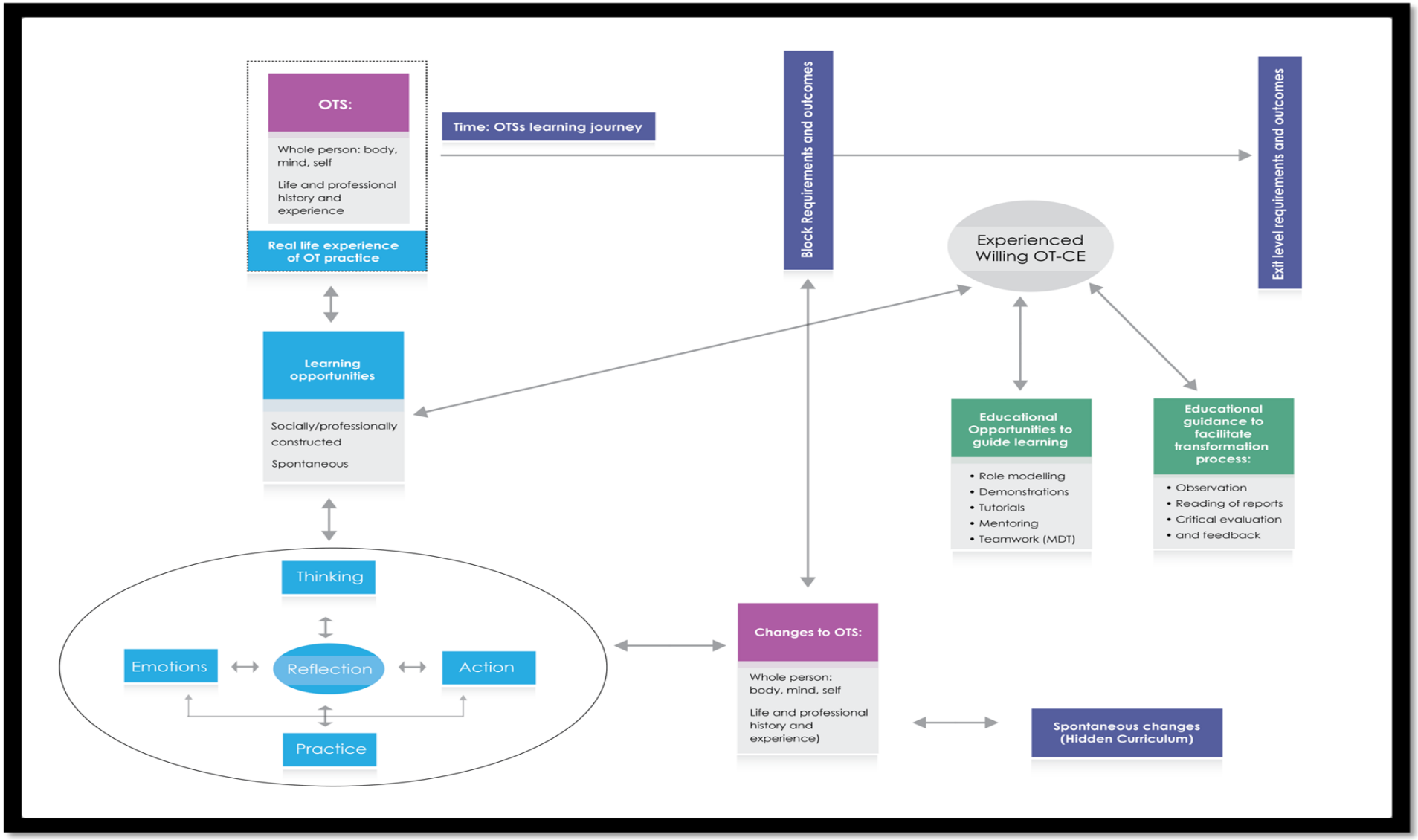


Figure 4.9: Essential Elements of Clinical Learning and Education

4.11.3.1 **'Pockets of Excellence'**

Participants lived experience of 'pockets of excellence' of clinical education on the Wits clinical teaching platform, are attributed, they perceive, to certain ingredients which influence the clinical education experience for all role players.

Experience as an ingredient for excellence

Central to an excellent clinical education experience is an excellent and experienced OT-CE who as per the literature provides a bridge for an OTS to translate classroom learning into practise and become a competent and confident novice OT clinician ready to meet the demands of the work place [99, 211].

Literature supports that clinical experience is essential before undertaking any clinical education. While the OTSs proposed that 5 years of clinical experience was essential before becoming an OT-CE, the HPCSA and WFOT have specified experience in terms of much less time, namely six months and one year respectively [7, 212]. Other literature suggests a much more person-specific approach to experience and reports that clinical education should only be undertaken when one feels professionally ready. The AOTA has a list of criteria that need consideration to determine readiness to be an OT-CE [60]. Tryssenaar goes so far as to state that new graduates should not be involved in clinical education, as the transition from an OTS to professional is a complex process that takes time [213].

Research by Holland has suggested criteria that may separate the experienced from inexperienced OT-CEs. Holland describes experienced occupational therapists as having professional confidence, which is a personal professional belief that matures over time and is linked to professional identity and competence [214]. Holland's representation of professional confidence has two components: an internal and external component. The core elements of the internal components are **knowing** yourself, your knowledge and skills and your role and **believing** in yourself, trusting your knowledge, skills and role. The core component of the external components is **being,** which is the enactment of the knowing and believing elements and is translated into the professional image and professional behaviour that is overt in a professional context [214]. All the characteristics of an excellent clinician identified by the focus group participants would fit well with what Holland described: being a reflective, accountable,

passionate, committed, knowledgeable occupational therapist who does good therapy and can explain what she is doing and why, and understands how the service works and the contribution she makes to it. These were the characteristics that the OTS participants felt they could respect in OT-CEs. Although no participant referred to excellent OT- CEs as good role–models, in the context of excellence it is assumed that these characteristics would also define a good role-model.

The findings described above are supported by the work of Grenier whose participants also concurred that an OT-CE should be an experienced clinician, and OT-CEs should be knowledgeable, committed/dedicated to the profession and have a strong work-ethic [215]. Being organised was an additional element identified in an Australian study by McKenzie, that was not identified in this study as an element that contributed to excellence [216]. On the other hand, the study by Rodger et.al on the attributes of Australian OT-CEs made no reference to experience as one the attributes that contributed to excellence [217]. A study by Burgess listed some specific elements including: good knowledge base; a balance between professional and compassionate behaviour: empathy and genuine concern for clients and being able to advocate for their rights; respect, knowledgeable and able to work in co-operation with members of the multi-disciplinary team [104].

While clinical experience was overtly noted as an ingredient of excellence, experience of clinical education was much more covertly stated. While participants agreed that experience in clinical education did not necessarily mean excellence, when accompanied by excellence as an occupational therapy clinician then there was a high probability that excellence as an OT-CE could be anticipated.

The literature reports that becoming an OT-CE is a process over time is not a discrete moment and occurs at different rates in different people. McAllister has developed a model of the experience of becoming a clinical educator consisting of six dimensions each with number of elements that contribute to the dimensions: a sense of self; a sense of relationship with others; a sense of being a clinical educator; sense of agency or purposeful action; seeking dynamic self-congruence and the experience of growth and change [107]. A study by Emslie used this model to describe OT-CEs on the University of Stellenbosch's clinical teaching platform [218]. The first dimension of

McAllister's model (a sense of self identity) is consistent with being in external component described Holland [219].

Thus it may be of value to try to identify occupational therapists on the Wits clinical teaching platform who demonstrate professional confidence when they are novice practitioners, and earmark them as possible OT-CEs of the future.

Desire to teach as an ingredient for excellence

Participants in all three focus groups identified this as a strong ingredient for excellence rather than ability to teach. This was not an element that was identified in other international literature although it is widely recognised that OT-CEs need some additional training before being responsible for the clinical education of OTSs [1] . Desire to teach was also not identified in any of the three national studies on occupational therapy clinical education, although the need for a preparation programme for new OT-CEs was acknowledged by Emslie, Hattingh and Syed [220] [218, 221].

The desire to teach is difficult to define. Grysgus and Prusik state that this is because it is a 'fact that is accepted by everyone' [222 p41]. Grysgus and Prusik suggests that a teacher who has a desire to teach must be an expert in his own discipline. Literature reports that students believe that this desire to teach is demonstrated through the passion and enthusiasm their teachers have for their discipline, as well as taking extra time and going the extra mile to ensure they understand [104, 222].

In a general sense it is probably safe to assume that occupational therapists follow a clinical career pathway because of their desire to serve, and those who desire to teach follow an academic career pathway. Breslin, Sebastian, Trautman and Rosseter. report that this desire to teach is critical to the academic discipline of nursing, but is probably also true for occupational therapy [223]. Although no research could be found to support this, the same is probably true for the clinical discipline of occupational therapy, as clinical education is essential for the development of professional competence and the future of the profession and the OT-CE plays a key role in achieving this [99]. This research has shown that while there are OT-CEs who have this desire to teach, there are others that do not. Those who desire to teach have an attitude that creates the possibility for excellence when accompanied by clinical excellence. Zastavker,

Goodman and Christetianson in trying to differentiate between those who have a desire to teach and those who do not, found that participants with a narrow view of the definition of 'to teach' were less likely to desire teaching than those with a broader definition [224]. While the definition of clinical education was explored it was not examined specifically in relation to OT-CEs who do or do not have a desire to teach.

Associated with the desire to teach was an appreciation of the benefits of being involved with the clinical education. The focus group participants highlighted the benefits of having OTSs as being a means of keeping up to date with the latest trends, research as well as helping with the client work load. While these three benefits were highly valued in this study, keeping up to date was reported to be only a moderate benefit and reducing the workload was only a slight benefit in an Australian study. Benefits most highly rated in the Australian study included recruitment for future employment, development of education skills and clinical reasoning skills in staff [225, 226] Pereira also highlighted the benefits of staff development from being involved with the clinical education of OTSs, but also stresses that it gave occupational therapists an opportunity to contribute to the education of the future occupational therapy work force [125]. Recruitment was not seen as a benefit of clinical education in his study, probably as OTSs have to complete a year's compulsory community service on completion of their degree, and the placement for this is managed by the South African National Department of Health and individual departments have no say on new graduates allocated to their hospital.

<u>The clinical educator-occupational therapist student relationship as an ingredient for excellence</u>

According to Kilminster and Jolly the OT-CE-OTS relationship is the single most important ingredient for excellence in clinical education [92]. This was reiterated in this study and in other clinical education studies with OTSs, but also with students of other disciplines [1, 218, 220, 221, 227]. The elements of an excellent OT-CE-OTS relationship identified in this study were: a person who is approachable, open and willing to engage with the OTSs, is willing to help and gives answers to their questions; supportive, encouraging and builds confidence about their knowledge and skill, is interested in the students as individuals and is genuinely concerned about their welfare. Students in this study reported that they can gauge how approachable an OT-CE is on meeting

them. A study by Holland students listed similar characteristics when describing the OT-CE–OTS relationship [219]. In the Holland study OTS participants also described this first meeting as being critical, and reported using behavioural strategies to win the supervisor over including 'using their charms' [219 p22]. Other studies all reinforced the importance of the OT-CE-OTS relationship and supported the characteristics of the CE-OT-OTS discussed in this study. These studies added adjectives like being respectful, honest, consistent, caring and sensitive, trustworthy and having an interpersonal connectedness, but at the same time understanding professional boundaries, being collegial, adaptable, confident, creative, culturally competent, non-judgemental, willing to listen and give advice, and answer 'stupid' questions [92, 215, 217, 228-231].

Students in a Canadian study reported that excellent OT-CEs also helped them to understand what they really needed to know and where there were gaps in their knowledge [232]. A study by Brown, Williams and Lynch reinforced the importance of including the students in all aspects of the clinical education site activities to create a community of practice [233]. Three studies suggested that an excellent OT-CE may also have a strong influence on future field of practice and job choice [41, 225, 234].

One aspect of the OT-CE relationship as an element of excellence that was not discussed in the focus groups of this study but is evident in other literature is that this relationship is also the vehicle for professional socialisation which is highlighted as being essential for development of a professional identity and appropriate professional behaviour of OTSs which is probably indicative of the OT-CE not regarding the OTS as colleagues. [99].

<u>The university clinical educator and on-site OT-CE relationship as an element of excellence</u>

Close collaboration between the university educator and the on-site OT-CE was also found to be an element for excellent clinical education. In South Africa, university clinical educator's play a very hands-on role in the clinical education of their OTSs that seems different from our international counterparts. The Wits academic staff are the clinical OT-CEs for all the junior students, engage in many of the clinical evaluation activities of the final year OTSs and have a monitoring and moderating function across

the teaching platform in order assure quality and consistency. University clinical educators also offer support and expertise to new and inexperienced OT-CEs. While university OT-CEs and on-site OT-CEs have regular contact, sound working relationships between all parties is important to ensure co-operation, as is close collaboration between the training institution and all clinical training contexts, as reported in other literature [218, 220, 230, 233].

Very little was discussed in the focus groups about the role and contribution of the university clinical educators in the context of excellence other than the support they provided to the OT-CEs. However excellent classroom teaching that prepares the OTSs theoretically was reported in a number of international studies [230]. An element that could potentially contribute to excellence that was not raised in this study was pre-clinical education block preparation which could be considered a responsibility of the university staff. A study conducted in Taiwan reported that the better the preparation of OTSs prior to the clinical education block the more successful the clinical education block [235].

Well run department as an ingredient for excellence in clinical education

Another ingredient for excellent clinical education was a well-run clinical department where the head of department was concerned with quality work, supported continuous education and professional development of staff and education of OTSs [235]. Thus a well-run clinical department forms the context for clinical education excellence. The elements of a well-run department were not enumerated in this study. International studies report that OTSs prefer clinical sites that are clean and well organised, where there is sufficient physical working space for client assessment and intervention, designated work areas for OTSs to complete written reports and assignments and easy access to professional resources such as the internet, computers, books and journals. The importance of easy access to technology for practise and teaching and learning was emphasised in the study by Hills, Ryan, Smith and Warren-Forward [236]. While this is an important consideration, South African occupational therapy departments have limited computers, and access to the internet is rare unless staff purchase their own data access [236].

In this study it was identified that OTSs had different learning styles: observing, trying out techniques them and being told what to do. International studies also suggest that

OTSs prefer clinical contexts where they can shadow occupational therapists while working and which are easily accessible in terms of travel [215, 225]. Clinical context that allowed the OTS to experiment and practice to perfect clinical skills and allows for a variety of clinical learning opportunities has also been found to be desirable [215]. Collegial relationships and sound co-operation between the occupational therapy staff and other members of the multi-disciplinary team who consult and collectively plan treatment outcomes for clients has also been found to be a desirable element for excellence [237].

Well prepared students as an ingredient of excellence

Interestingly none of the focus groups specifically highlighted the role of the OTS in the achievement of excellence in clinical education. There was general discussion on the need for students to have a positive attitude to a clinical education block; to work hard, prepare adequately and take responsibility for their own learning; to have an internal locus of control, professional and ethical behaviour, to be reflective and critical of their own performance, to listen to the constructive feedback they are given and use the feedback they were given and managing their time and stress. Undoubtedly these characteristics would assist the provision of excellent clinical education many of these characteristics have been discussed in other studies [213, 216, 219, 228, 229, 235]. Students in the focus group also reinforced that excellent clinical education requires them to be seen as individuals, each with their own educational needs and learning styles. This was a finding also reported in the work by Grenier [215]. Self-confidence and especially confidence to try new things and good communication skills were also noted as being essential skills, although overconfidence evident in the Y generation OTSs was termed problematic [216, 236].

4.10.3.2 **'Challenges to the quality of clinical education'**

Poor role-models as a challenge to quality

Poor role-modelling was a persistent theme in the focus groups that participants kept returning to which suggests that it is an area of concern for all the role players in clinical education.

Perhaps the reason for this is highlighted in Irby's conviction that role-modelling is a significant teaching and learning strategy used in clinical education [238]. Role-modelling

as a teaching and learning strategy is described as being as much about doing (what you should do and how you behave) as it is about being (who you are) [239]. In the context of this research, poor role-models were characterised as those occupational therapists who had poor professional behaviour and work ethic (doing) as well as poor professional identity (being).

In a recent Australian study the researchers reported that there has been very little research into what professionalism means to the occupational therapy profession and the values that we hold are not always overt and therefore do not provide specific guidelines and criteria for professional behaviour. This Australian study identified three categories of values that guide professionalism: 1) the client and client-therapist partnership; 2) occupational therapy knowledge, skills and practice; and 3) selfless values [240].

The first sub–code in the Theme 2: 'Is this Occupational Therapy?'

This sub-code highlighted the lived experience that participants were experiencing practice that contradicted the philosophy and values that underpin the profession. This perception resonates with the values that were identified in Australian study within the category 'occupational therapy knowledge, skills and practice'. The deficient values can be classed as not using current professional knowledge and skill by not using occupation as the central theme of intervention, inadequate problem solving and clinical reasoning to name a few elements [240]. This sub-code has been reported in other national studies by Hattingh and Syed [220, 221]. Some research has suggested that in practice setting, professionals have their own way of doing things which is confusing to OTSs and challenges the values developed during their classroom learning and when confronted with the realities of practice [213]. Some studies have identified that what is taught in the classroom is very different from practice as is the case in this study where the paradigm shift gap was reported. This causes tensions between role players and [241] led to the suggestion that the OT-CEs should decide on curriculum content and not the university staff. This problem is compounded by university curricula having to meet legislative criteria for licensing purposes which dictate an occupation- and evidence-based approach o practice. While clinical practice sites, both public and private, do not have to adhere to these same rules.

In some clinical contexts literature reports occupational therapists struggle to provide effective occupation-based services especially where there is a rapid turnover of clients and lack of resources for intervention proposes. What they can offer clients is being eroded by organisational demands that limit intervention time and focus, and symptom-based care with no focus on future independent living skills and quality of life in the community [239]. Some participants perceived their experiences were consistent with above literature but some also believe that occupational therapists use lack of resources as an excuse, as they perceive it is possible to do occupation-based therapy with minimal resources. Limited resources were mentioned in a number of studies, and that advocating for service funding was an important function of management and leadership.

In the focus groups poor professional behaviour was ascribed to poor leadership, with there being no accountability and consequences for inadequate professional work and little value placed on professional development and evidence-based practise. Participants reported on their lived experience that many occupational therapists practised as they were taught in their undergraduate training, and knowledge and skill had not been changed or influenced by the legislated continuous professional development programme [242]. This reinforces the need for all occupational therapists to have professional supervision, or at least identify a mentor to assist with their professional development [8, 150].

The literature suggests an alternative reason for poor professional behaviour is poor professional recognition. This was not discussed in the focus groups [150, 213, 241]. This poor recognition of the profession by the predominantly medical/nursing managers, has been reported to contribute to poor professional behaviour as does not being valued by other members of the multidisciplinary team [213, 243]. Pressure from more dominant professional groups to align professional thinking to the medical model has also been described [244]. Literature also reports on the notion held by other health professionals that anybody can do occupational therapy which also undermines the integrity and status of the profession [239, 245]. These directly influence professional identity, and influence the motivation and enthusiasm with which they do their job.

A strong professional identity has been described as essential for the promotion of the profession and for the presentation of the profession's role in a multidisciplinary context [246]. Attaining a strong professional identity is a developmental process and is based on attaining professional values, beliefs and knowledge over time through the enactment of the professional ethos and paradigm which is an aspect of the socialisation process that occurs during Clinical education [247]. This has also been called the 'face of work' of the profession which by nature has tended to be neutral and objective in a therapy context which conflicts with the more assertive need for occupational therapists to sell themselves more effectively and not to be intimidated by other members of the multidisciplinary team [248, 249]. In the current study participants reported that there were OT-CEs who really wanted to be physiotherapists, and that this impacted on the work that they did and created a negative role-model in the eyes of the OTS participants. While this was described in a single Australian study it is a reality in South Africa where students are admitted to professional education programmes which they do not want to follow because their marks were not good enough to be admitted to the programme of their choice [96, 250, 251]. It is the Wits OTD's experience that there are OTSs who overcome this professional crisis and develop a passion for the profession over time but there are clearly those who do not. This has a lasting impact on their professional identity and their professional satisfaction, and will certainly influence the clinical education they deliver to OTSs.

Poor work ethic was another persistent topic in the focus groups. The participants lived experience is that this is something everybody knows about, is concerned about but is powerless to change. It is not hidden and is blatantly obvious, and the perpetrators seem not to care that others know. A range of behaviours were described: being at work but not working, appearing busy but not doing profession related activities (playing computer games/personal studies/organising weddings) and then more professionally unethical behaviours like not treating clients at all, or not appropriately, or sending them away when they are late for appointments. Other literature reports similar unprofessional behaviour towards clients and suggests that it is a consequence of burnout [213]. Participants in this study considered that one of the reasons that this is tolerated is that there is unsuitable and unaccountable leadership. It was the participants' lived experience that often it is the leaders who are the culprits. Some participants perceived that complaining or reporting the situation would not be in their

interests because they would be compromised or were powerless so who would listen to them anyway? There was also the suggestion that some culprits were being protected by socio-political forces. This was also suggested in the work by Tryssenaar [213]. While many challenges to occupational therapy practice are described in the literature they are more related to the managerial nature of organisations that have commitments to insurances companies, managed health care and litigation risks, and where the individual needs of clients are lost in the prescribed benefits and time limited interventions [252].

Reluctant clinical educators as a challenge to quality

This study found that a number of OT-CEs on the Wits clinical teaching platform could be classified as being reluctant and this was perceived to be a considerable challenge to quality of clinical education. Professional literature affirms that OTSs can only learn the necessary professional skills and competencies is in an appropriate clinical setting [57]. The main contributors to quality clinical education are the nature of the clinical education process and the active engagement of OTSs and the OT-CEs in this process [43, 60]. Occupational therapists have always been expected to teach and ensure that students have the required competencies for practice. This role is included in the job description of all public sector occupational therapists, although the job descriptions do not detail what this should include or the percentage of time that that should be dedicated to this role [253]. However there are OT-CEs what do not desire this role, or find this additional role takes time and energy and is a burden alongside the service delivery pressures [254]. The rise in student numbers has increased the need for OT-CEs to take on this dual role [1, 99, 253]. Literature reports that some clinical educators marry these two roles effortlessly but others struggle [254]. Clinical educators reported that clinical education takes time, and takes them away from their primary role of treating patients.

The findings of this study suggest that some OT-CEs may not know how to help students translate their classroom knowledge into practise and in some cases may not wish to be involved with students at all. Occupational therapy-CEs' clinical education knowledge and skill may be limited to the manner in which they were taught in the context of their own clinical experience as students and may be a source of their reluctance. Clinical education itself has a developing body of knowledge, and

knowledge of educational principles and processes are becoming essential for professionals involved in the professional development of students in the clinical setting. Most health professions', including occupational therapists, are advocating that clinical educators attain basic knowledge and skill in teaching and learning when they become clinical educators [60, 99, 253, 255, 256].

A Canadian study identified stress as being a major factor in why physiotherapy clinicians were reluctant to be involved in the clinical education of students. Their stresses went beyond time and service pressures and included the stress of being judged by students as being underprepared as clinical educators, being intimidated by the new knowledge that students bring, and clinical experience being challenged in the light of new evidence and professional developments [257].

Since clinical education is not seen by clinical staff on the Wits teaching platform to be a valuable source of future staff, the link between good clinical education and good clinical outcomes as a professional investment appears not to be well recognised or valued. This is contrary to findings in other countries where clinical departments actively participate in clinical education for staff recruitment purposes [40, 257]. While there is literature as to why on-site clinical educators agree to or do not wish to be involved in clinical education, there is little literature on those who do not wish to be involved but are pressured to do so due to mandatory requirements in their job description. International literature suggests that this should not happen until the individual clinician is professionally ready to do so [1, 99]. While it may be advantageous to wait for clinical staff to be professionally ready to take on the clinical education of OTSs, the reality of the South African situation is that for the foreseeable future this will remain a problem until there are sufficient clinical staff with experience who are willing to deal with the increasing student numbers.

Study participants perceive that there is a tension about the roles of the on-site OT-CEs and the university educators, in spite of the co-operative relationships being in place. This view suggests that on-site clinicians perceive their responsibility is providing learning opportunities that it is the universities' responsibility to educate. This is to some extent supported by the reluctance of clinical staff to take responsibility for the junior students (1st to 3rd years). There are a number of clinical placements,

especially the schools for children with special needs, who have offered to accommodate students but will not do any clinical teaching or activities associated with this role. The implication is that the university staff should do this. It raises the question as to how effective is it to teach clinical competence if the teacher does not know the client or have access to the school records or information that might inform practice. What would be the ethical implications of this?

Financial rewards for clinical education have also been raised from time to time. The Hall study on Canadian physiotherapists also explored this but the result demonstrated that clinical educators did not want to be paid but to be acknowledged and thanked [257]. Currently OT-CEs can be credited with a maximum of 16 CEUs in a year depending on the number of students they are responsible for. Access to the university library and reduced costs for short and formal courses have also been frequent requests but this is not possible unless there is a formal joint appointment with the university. In this context the reluctance of OT-CEs to entertain the possibility of honorary university posts (joint posts) and more collaborative activity around service, research or education is difficult to comprehend.

Students are aware that some CEs are reluctant OTSs perceive that this impacts on the CE-OT student relationship, clinical learning as well as experiences within the clinical education block. This they experience as an additional stress over and above the stress of their clinical learning.

<u>Demands of the clinical curriculum as a challenge to quality</u>

The clinical curriculum aims to systematically help students to transitioning their classroom knowledge into the clinical competencies required to meet the defined exit level outcomes. All participants had some concern about the clinical curriculum as a challenge to quality although there concerned varied: the taxonomy being used, the focus and principles based on professional developments and research; the clinical learning activities and learning opportunities described by the requirements; differing knowledge, skills and behaviours required in different contexts; the expectations, and the fit and flow of clinical experience and the clinical context constraints to name a few. Thus a clinical curriculum will probably never be perfect will always be a work in progress and should always be the focus of critical review [258]. This is supported by the

literature on programme satisfaction as well as studies on workplace readiness, which continuously identify gaps that need future attention [232, 252, 259]. This is also a challenge in many other professions [260, 261].

A number of participants perceived that a new graduate's clinical competencies should be closely aligned to that of an experienced occupational therapist when they took up a community service post. This was discusses in all focus groups as a issue for the clinical curriculum. This implies an expectation that new graduates need to be totally work ready and an expert without due experience. However, this perception does to not support the idea that professionals develop over time from a novice to an expert [141], and that clinical skills and expertise develop over time with experience and clinical reasoning [107, 108].

One of the issues raised in the focus groups is whether this clinical experience with real live clients is merely a practice opportunity for the OTSs guided by a qualified occupational experience or an educational experience which demands a completely different attitude, knowledge and skill-set from the OT-CE. Literature supports the proposal that the clinical experience is an educational experience rather than skills training, which demands an educational process that is implemented by OT-CEs who are knowledgeable about the teaching and learning process which requires some training on educational process over and beyond their professional education [1, 97, 261, 262].

Students and the way they learn as a challenge to quality

Some students as role players in the clinical education process were described as challenging in this study. Their motivation, focus on marks rather than openness to learning, neediness, high stress and poor coping mechanisms were frequent challenges discussed.

It was the participants' lived experience that OTSs arrive at new clinical education sites having done variable levels of preparation which also influences their ability to settle into the clinical education block efficiently, which impacts on the OT-CEs time, approach to OTSs and often their patience. A study by Campbell and Corpus listed the OTS behaviours most valued by OT-CEs [229]. Many of these expressed in the negative,

were discussed as behaviours in OTSs that challenge clinical education: being inflexible, being unprepared theoretically and having limited clinical skills, poor communication skills, being unethical (particularly when cutting and pasting information for reports), being irresponsible, not being able to manage time in relation to client care and assignments, not listening to and using feedback given, negative attitude, being dependent, being insensitive and disrespectful of others' backgrounds [229].

Student participants indicated that they required individualised timely clinical education that was specific to their needs and learning style in order to learn effectively. Similar sentiments have been expressed by OTSs in other studies [215, 228, 243]. Similar to other studies the OT-CEs participants were concerned that this expectation, although desirable was difficult to achieve given their work pressure demands [215, 225]. Quick identification of students' learning styles has been reported in the literature to be difficult, as is an OT-CE adjusting her learning style to that of an OTS, especially in time limited contexts [128]. However there is recognition and literature to support the fact that one approach does not fit all students [254].

Participants in this study perceived the OTSs' pre-occupation with marks as impacting on their time use limiting their learning to mark-generating activities. Student participants had contradictory perceptions. They perceive they were being marked all the time, everything they did was noted evaluated and graded and used mostly against them. But at the same time there were concerns that they were not observed and their OT-CEs were seldom available for the critical observation that generated feedback and marks. They also describe how their behaviour is modulated in a way they believe is advantageous to their marks.

While it is a well-recognised fact that evaluation drives student learning [263], this kind of behaviour seems to lose sight of the fact that in a clinical context what they do relates primarily to service to the client and the learning should flow from this fact. From an ethical perspective they should always be using beneficence as the guiding principle, and client-based activities should always be the best they can achieve.

The OTSs expressed always feeling stressed. This is mainly due to the annual clinical programme being tightly structured with four to five week blocks in different fields of

practice, following one another in quick succession with a very limited settling-in period. This constant change creates stress as this demands that OTSs are flexible, adaptable and resilient and those that are not struggle [264].

Short clinical education blocks are a characteristic of South African occupational therapy education where the focus is on attaining generalist competencies at the undergraduate level, which is different to some international programmes where OTSs tend to do longer clinical education blocks but their experience across the field of practice is limited [243]. Most students cope with this but others struggle in adapting to these changes especially when they are tired towards the end of the academic year and when the clinical education blocks have been challenging, stressful and emotionally draining.

Most OTSs experience an increase in their stress levels at the beginning of a clinical education block and this is well described in the literature and is associated with the unknown and facing new challenges. Student participants were especially concerned about passing, especially as fourth year is the graduating year and unlike the more junior years failing assignments/evaluations had greater consequences and thus created more stress. This was also identified in the study by Mackenzie who reported an increase in the OTSs anxiety level especially when the summative examination was imminent [216]. Stressors such as meeting clinical requirements and assignment deadlines is also a challenge experienced by OTSs internationally [265]. A study by Ruiz-Aranda, Extremera and Pineda-Galas. suggests that health science students experience high stress levels because they are not sufficiently prepared to deal with the emotions associated with clinical practice [266]. High levels of stress impede OTSs' learning, clinical performance as well as their ability to provide effective care for clients [264] . Some OT-CE participants reported strong feelings about OTSs being allowed to deal with clients with mental illnesses when their own stress levels and coping strategies were compromised. In general, concern was expressed by the poor coping mechanisms of OTSs and lack of resilience, and this needed an alternate strategy as changing the requirements had not substantially changed the stress levels.

Delany, Miller, Remedios Hossein and McLeod proposed a model of clinical learning to explain the nature of clinical education stress and to provide psycho-educational

strategies to build resilience to overcome stressors typically associated with clinical learning settings which may be useful to help OT-CEs to understand the clinical learning factors that increase OTSs' stress [264]. Participants in this current study reported that struggling and at–risk OTSs were particularly prone to high clinical learning stress that bordered on panic, and often lacked positive coping strategies resulting in feelings of poor self–worth and personal causation. This was also reported in the longitudinal study by Janse van Rensburg and Kapp [267].

Some studies report stress associated with more-practical concerns relating to travelling, accommodation and costs associated with clinical education blocks although these were not raised in the focus groups but are known to the researcher [40, 216].

Time as an element that challenges quality

Time as a challenge to quality was discussed by all three focus groups. In this study all participants reported feeling time pressured to achieve the clinical education block outcomes and manage the clinical education block requirements within the four or five week designated blocks.

The literature reports that OTSs have difficulties judging how much time is needed to keep up with the workload [251]. Student participants reported that their lives were completely consumed with the Clinical education demands such that they had insufficient sleep and no balance in their lives. While other studies reinforce that there is much to learn in clinical education blocks and they stress the importance of time management to ensure that students are not overworking and are able to balance work with their personal lives [213, 216]. This study reported this time pressure as being significant.

Occupational well-being is a term that is familiar in occupational therapy literature and a concept considered in the context of client care where balance, comfort, meaning, satisfaction and social appropriateness of activities within daily occupations is viewed as healthy and promoting wellbeing [268]. While it is typical for students to experience time pressure and limited occupational balance in a pre-examination time period, perhaps more attention should be paid to helping OTSs develop the skills to manage their work and personal lives so there is better occupational balance. In so doing it will

be important to analyse the written work demands that are unintentionally causing distress. Hills, Ryan, Smith and Warren-Forward cautions that these factors need to be considered relative to the characteristics of the Y generation OTSs who are distressed by routine and mundane tasks that are time consuming, and prefer learning activities which demand minimal input and maximal output [236].

Participants' lived experience is that OT-CEs are busy, have heavy workloads and clinical pressures that demand their time, especially when their income is connected to patient care and student–related time needs to be cost efficient [92]. These constraints limit their availability for clinical education which in itself is time consuming. Students see OT-CEs as being too busy to help them and when OT-CEs do not find sufficient time to provide OTSs with sufficient educational input then it negatively influences the OTSs' learning and their experience in that clinical context. International and national literature concur with this finding [92, 215, 216, 220, 225, 230]. Some participants in this study suggested that when there is more than one OTS the clinical education of strong OTSs may be compromised by the additional time and input required by weaker students in the time limited clinical education block.

The focus group participants confirmed the anecdotal reports that much of the clinical education of OTSs occurs through the marking of written case reports and treatment plans, and that feedback on the written work substitutes for feedback of a more practical and clinical nature. This was explained as a strategy to give students feedback in a time-constrained clinical context. While no study could be found that directly supported this, the emphasis on the need for face-to-face feedback implies that feedback in other contexts may be mainly written as well, and OTSs wanted more face-face feedback than just check marks as these did not give sufficient affirmation of knowledge and skill [228]. A study by Curwood, Tomitsch, Thomson and Hendry in Australia on the clinical education of medical students identified that while face-face feedback in clinical education is effective, it is time and labour intensive [269].

Student participants reported that often the feedback that they receive is not timely and they cannot use the feedback to correct mistakes, improve practice or their marks. While this was reported in the study by Hattingh, it was not reported in other studies although timely feedback is a well-recognised educational principle that supports

learning [220]. Student participants also reported asking their OT-CEs for and making appointments for feedback and observation of clinical interactions with clients, which were ignored or promised and not met and then having to learn without help or support. While this could be viewed as unprofessional behaviour on the part of the OT-CE it may be consistent with the view by Telio, Ajjawi and Regeher that feedback as a component of the clinical education process is difficult, especially if the OT-CE–OTSs relationship is not sound and there is not agreement with the goals, clinical education processes and requirements [270]. Student participants also expressed their concern that feedback given in time-pressured contexts tends to be more negative than positive, which negatively affects their professional confidence. This was also reported in the study by Scheerer [228].

4.11.3.3 **'The grapevine'**

This theme can be associated with work-related gossiping which has been described as informal and evaluative talk that may be positive or negative in the work context [271]. Gossiping is reported to occur in most work settings [272]. Some researchers consider gossiping to be a group process rather than just a communication between just two people [271, 272]. Gossiping has also been considered an activity linked to workers with limited self-control, but others with more self-control being able to be more task focussed and moderating what they say and to whom [273]. Other studies have found that gossiping in health related professions contributes to the release of the stress from daily work activities [274].

Gossip has also been shown to increase where there are factions in the workplace [271, 275, 276]. This may be consistent with the clinical education context with three distinct factions: the OTSs, the on-site OT-CEs and the academic staff. The focus groups report that gossip via their particular grapevine is both positive and negative and that the information disseminated can be factual or not, depending on the individual's perception of the facts reported to others. Students disseminate gossip via social media so that what they are thinking, feeling and doing is instantaneously circulated, driven by the need consistent with the Y generation to keep in touch with family and friends while at work [236]. While the grapevine in the other two groups of participants appears slower, is also effective and creates lasting perceptions that are difficult to change over time.

The literature describes the purposes and consequences of positive and negative gossip as being different [271]. Positive gossip is often in the form of praise and recognition of achievements. This acts to embed socialisation and communication within the group, demarcates norms for behaviour, which enables group members to know who is doing well, who they can count on, who will support them and provide assistance. It reinforces group belonging, provides group affirmation, reinforces group member inter-dependence and solidarity, regardless of the accuracy of the information [271].

On the other hand research has suggested that group members are generally more interested in negative gossip [277]. The participants described the grapevine as being dangerous as the gossip often contains 'whispered' negative information about the intentions or behaviour of others that could be damaging to the person or context, and there may be consequences of information being heard. Negative gossip may victimise, violate the individual person's right to privacy, and may ostracise them from the group or work community [271]. Unless there is complete trustworthiness in the receivers of negative gossip, invariably the negative gossip is heard and disseminated. This may cause high levels of distress and have serious consequences, especially for OTSs and OT-CEs who have to overcome negative perceptions of others in subsequent clinical education blocks. Research in occupational therapy clinical education has found negative gossip to have a destructive influence on OTSs, which affects their learning and progression [220, 278].

It is impossible to control the grapevine and its effects, but it would be worthwhile for the OTD to alert all clinical education role players of the dangers that are inherent in the grapevine, and for all to exercise self–control and restraint on what is said, and how it is said especially on the spur of the moment and when in a heightened emotional state.

4.11.4 **Concerns that Need Immediate Attention**

The results of this aspect of the study reflected the complex nature of clinical education and reinforced that each group of stakeholders contributed to both the successes and challenges. These findings support Jarvis's contention that clinical education is complex with many factors influencing the quality and outcome, as well as Grenier's view that clinical education is a collaboration [205, 215]. While collaboration between the university

educators and the on-site OT-CEs is well recognised, the inclusion of the students in this collaboration has been emphasised in recent studies as there is growing appreciation that as adults, OTSs are not passive recipients of clinical education and need to be active partners in this learning process [215, 228, 279].

Each group of participants expressed what they believed needed to be done immediately to improve the quality of clinical education of OTSs.

Occupational therapy-CEs and students believed that better management of the students' stressors would improve both their clinical performance and client care. Students knowing what support systems were available, managing their work related time and their personal lives better, and reviewing their attitude to marks could achieve stressor management. Their attitude to a specific block influences their stress and level of engagement, and therefore the outcome of their learning.

University educators acknowledge that the clinical curriculum may also be a source of the stress, as the requirements for each block may be expecting more than is absolutely necessary of some students and not sufficient of others. The requirements may not be sufficiently understandable to be interpreted clearly by all CEs and students. This lack of clarity creates uncertainty about what exactly needs to be achieved, and while OTSs wish requirements to be seen as guidelines so they can be used in a flexible way, they also want them to be consistently applied.

University educators also acknowledged that the support given to students within the department in the earlier years as part of a student-centred policy, may be contributing to students being 'dependent and needy' in the clinical situation. University educators are also very available to students to have their needs met. While this is consistent with students belonging to the Y generation, who have grown up believing they are special and are therefore entitled to attention and immediate feedback, and prefer a 'how to guide' rather than think through problems independently which is essential of occupational therapy practise [280]. This may be creating some tension with the OT-CEs who have a high client load, which they perceive to be their priority, so they are not immediately available, and therefore wish OTSs to understand their time constraints. This is consistent with the research by Hills, Ryan, Smith and Warren-Forward who

proposed that OTSs need to have expectations and boundaries clearly prescribed for professional behaviour and communication during clinical education blocks, and may also benefit from some additional training in listening to and implementing feedback [236]. Occupational therapy students advocated that OT-CEs should be good role-models, but in addition must be approachable and have good communication skills, and treat them as individuals, and who adapt the clinical education process to the OTSs needs. These sentiments have also been echoed in other research with clear and precise communication being emphasised as essential, as well as a professional communication style that is not overly casual and familiar which may be interpreted as disrespectful [215, 216, 236].

Both university and OT-CEs clearly articulated the need for training of OT-CEs as a priority, but not training focused on the requirements (what to do) but rather in educational components including evaluation (how to do). This is consistent with beliefs in many health-related professions all over the world [1, 83]. Although students are clear that only OT-CEs who wish to take on this role should be allowed to do so, they did not specifically recommend training. However, many of the concerns they raised as needing immediate attention fall into how the clinical education process should be practised (how to do). Occupational therapy CEs themselves are advocating taking on a more educational function including: role-modelling; managing the learning process and acknowledging that students are learning. Furthermore, they highlighted that their professional responsibility, of keeping up to date with evidence based practice and research, would facilitate or enhance the clinical education process.

University and OT-CEs have seemingly different views on the time learning clinical education skills might take: university educators stress mentoring, which by implication takes time and ongoing intervention, but OT-CEs suggest that a workshop at the beginning of the year for new CEs is what is needed, as well as explaining the changes to theory that students are taught.

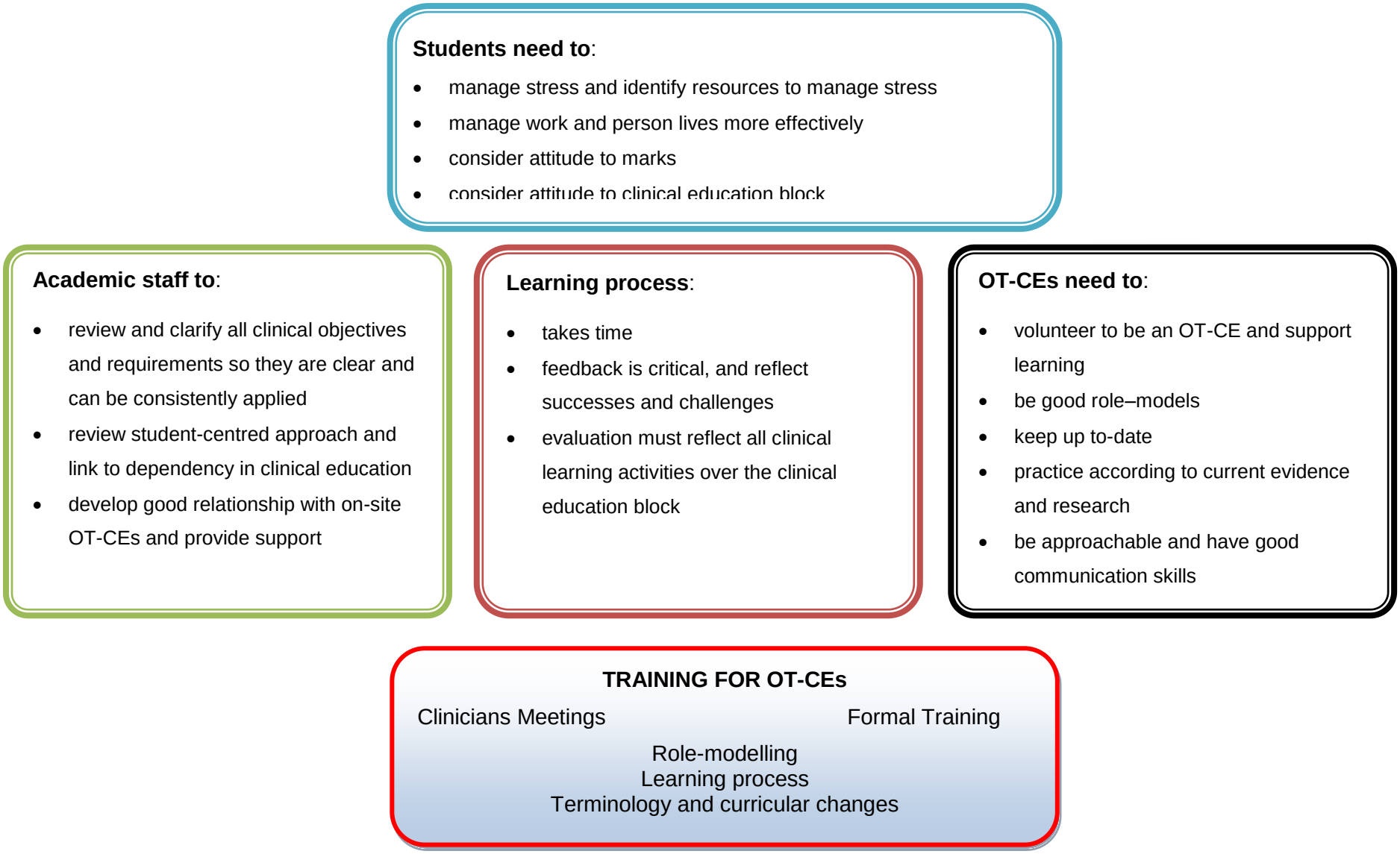


Figure 4.10: Diagram Representing the Clinical Education Issues Needing Attention

4.12 **CONCLUSION**

This chapter used a descriptive phenomenological approach to explore the phenomenon of clinical education on the Wits clinical teaching platform from the lived experiences of those who receive it and those who give it.

The following emerged from the data of this qualitative aspect of the fixed sequential exploratory mixed method design:

- concerns were confirmed that there is not a common understanding of the concept of clinical education and this as a starting point contributes to challenges in providing quality clinical education to final year OTSs (Objective 1a).

- confirmed that there are OT-CEs at clinical education sites who provide OTSs with excellent clinical education. It is the perception that there a number of key factors that contribute to this and these include experience of the OT-CEs, their desire to teach, the OT-CE student relationship, the relationship between the university educators and the on-site OT-CEs, a well-run occupational therapy department as the context for clinical education, and well prepared OTSs (Objective 1b).

- confirmed that the lived experience of the participants was that there are many challenges to clinical education. The factors perceived to contribute to this include: poor role-models, reluctant clinical educators, concerns about the clinical curriculum, students and the way they learn, time pressures, as well as the grapevine which operates within each group of role players and negatively influences the quality. The challenges that emerged from the data were consistent with the concerns raised by the OTSs at the time of the routine programme accreditation visit by the HPCSA in 2009 and therefore provided the evidence that these problems did in fact exist in the reality of the clinical education process (Objective1b).

- confirmed a list of elements that participants perceived needed urgent attention to improve the quality of clinical education. The participants perceived that among other strategies there was a need for all OT-CEs on the Wits teaching platform to receive some additional training in clinical education to improve (Objective 1c).

The first step in determining what the additional training in clinical education would entail was to establish what knowledge, skill and attitudes towards clinical education OT-CEs already held from their undergraduate education, received from their work place and/or received from the university OTD. It would be important to also examine their thoughts about such training. This information was determined from the quantitative studies that made up the second part of the sequential explorative mixed method design used in Part 1 of this study. These studies will be described in Chapter Five.

CHAPTER FIVE

5. CURRENT CLINICAL EDUCATOR TRAINING AND SUPPORT

The previous chapter identified from the 'lived experience' of clinical education stakeholders that the quality of clinical education on the Wits training platform had pockets of excellence but there were considerable factors that challenged quality. While the participants suggested a range of factors that needed attention, the need for training of OT-CEs was articulated as a priority: not training focused on the requirements (what to do) but rather on the educational components or pedagogy associated with clinical education (essentially how to teach).

However, before any education programme could be developed some background investigation was needed to examine how OT-CEs are currently trained and supported nationally and locally for this important responsibility and what OT-CEs actually knew about teaching OTSs in the clinical context. It was assumed that this information would inform the nature of any future educational input, support and other interventions that the Wits academic OTD might need to undertake to assure the quality of clinical education for our students and competent entry grade practitioners for the profession.

Thus the quantitative components of the sequential explorative mixed methods study were designed to sequentially examine this information. For clarity the quantitative studies that contributed to this understanding have been named Study .2, 3 and 4.

Figure 5.1 details the research questions and the objectives for Study 2 which will be described next in this chapter.



Figure 5.1: Components of Study 2

Studies 2, 3 and 4 consisted of three discrete surveys. Each survey will be reported separately and will include a brief review of the literature pertinent to the objective(s), description of the research method used, the results, and then the findings will be discussed. Finally, the results of Studies 1, 2,3 and 4 which make up the sequential exploratory mixed methods design will be 'mixed' and collectively interpreted to draw conclusions about the research thus far and then describe how they will inform the next stage of the research process.

5.1 STUDY 2: CHALLENGES TO CLINICAL EDUCATION NATIONALLY

The perception that quality of clinical education on the Wits teaching platform was compromised by the many factors described in the focus groups raised the question as to whether this was unique to the Wits context. Wits is one of eight universities offering occupational therapy programmes in South Africa, all of which are accredited by the HPCSA and comply with the minimum standard [29]. Thus all students are required to complete the mandatory 1000 hours of Clinical education. However each university has its own model of clinical education for final year students, with differing input by the on-site occupational therapists and the university staff or specially appointed university tutors.

No literature review was included here as the literature pertaining to the quality of clinical education be it excellent or challenging has been described in Chapter 4.

The objective of this first quantitative survey of Study 2 was to determine if the clinical education challenges described in Chapter 4 were unique to Wits (Objective 2a).

5.1.1 Research Method

The methodology used was a quantitative, descriptive, single telephonic survey design. This design was selected as it was quick, cost-effective, easy to administer and ensured a good return, especially as academic staff are known to be busy [184].

5.1.2 Study Population and Sample Selection

To gain a national perspective all eight occupational therapy programmes were invited to participate in the research. As the population was so small, a random sample was not selected, but the whole population was included [281].

Each formally appointed head of the eight academic OTDs was invited to participate in the study. Those heads who agreed to participate were invited to nominate a curriculum/clinical training expert to participate in the study. Thus department heads were asked to purposively select a truly representative sample by deliberately including individuals who met the criteria of being knowledgeable about clinical education in each undergraduate curriculum as well as the programme of continuous support and education for OT-CEs [282].

The sample was limited to one participant for each university, (n=8).

5.1.3 Data Collection Instrument

A survey was administered during a telephonic interview. The four interview questions were designed specifically for this research, (See Appendix G). Since the survey was exploratory, the same questions were asked of each participant. Current literature was not used to design the survey questions to ensure validity, but the questions were designed to understand each university's perspective on clinical education on its teaching platform as well as its perception of the challenges [184]. The face or content validity of this telephonic survey was considered in formulating questions that were concise, unambiguous and focused on the research question at hand. Use of expert opinion is considered appropriate to determine face or content validity of a survey thus two experts (previous heads of an OTT and CRW training programmes) were asked to review the four questions that were to be asked [283, 284]. The experts made some suggestions regarding the format, but no question was changed or reformulated. The experts agreed that the questions were consistent with the aim and objectives of this aspect of the study [184].

Each participant was asked the following four questions. Only the first two pertained to this section of the study, the other two will be reported in 5.3:

Their designation (No other demographic information was requested),
Did the academic department have any concerns about the clinical education of its final year students and if so what were they? (Relates to Research Question 2 Objective 2a; See Figure 5.1),

Describe any educational activities included in the undergraduate curriculum to prepare students to be OT-CEs in the future (knowledge, skills and attitudes) (Relates to Question 3 Objective 3a; See Figure 5.1).

Describe any training provided and support given to OT-CEs responsible for the clinical education of students from that university (Relates to Question 3 Objective 3a; See Figure 5.1).

5.1.4 Data Collection

The researcher set up dates and times for the telephonic interviews with the nominated participants. The information sheet (See Appendix G) and the interview questions were sent to the participants a week prior to the interview so they had the necessary information at hand to prepare for the interview. The data were recorded on a survey form during the interview by the researcher. The accuracy of the information was cross-checked with the participant if there was any uncertainty.

5.1.5 Ethical Considerations

As described above the designated heads of departments were invited to participate in an e-mail that outlined the aim, purpose of the research and the nature of the participation required. If heads of department agreed to participate, they were asked to nominate a participant from their departmental staff who was knowledgeable about the undergraduate clinical curriculum and clinical education, and email their name and contact details to the researcher. The researcher invited nominated subjects to participate, forwarded them the information sheet and the interview questions. No consent forms were signed as setting of a date for the interview was taken as consent to participate [184, 285].

5.1.6 Data Analysis

The data were transcribed on to an EXCEL spreadsheet and analysed descriptively using tables, bar graphs and frequency tables.

5.1.7 Results

Only the results of the first two questions of the telephonic survey will be reported in this section. The first question related to the demographics of the sample while the second question is specifically linked to Question 2 Objective 2a.

5.1.7.1 Demographics of the participants

All eight of the universities participated in the survey (n=8). In five cases, the head of department was the participant. One was the acting departmental head, one was a previous department head and one was the final year clinical coordinator. No other demographic information was requested, but by implication of their nomination, all

participants were experienced and knowledgeable about the clinical curriculum of their university and understood the clinical education that their OTSs experienced.

5.1.7.2 **University concerns about clinical education**

The eight participants described 16 concerns about the clinical education of their final year students. The concerns varied in frequency from one to seven. Seven participants described poor role-models as a clinical education concern.

The concerns were categorized into three groups: logistical and financial concerns; concerns within clinical training sites and concerns around the clinical education. This was done so as to compare university concerns to the concerns and challenges that were raised in Chapter 4. (See Table 5.1 below).

Table 5.1: University Concerns about Clinical Education

Concerns	Issues Raised	Descriptions of Issues
Logistical and financial concerns	Sustainability of DOE grant to maintain university OT-CE programme (frequency=3).	'Very reliant on this to employ OT-CEs, if it stops we will be in trouble.'
	Lack of transport limits placements (frequency=2).	'Venues are far and transport is expensive which has implications for staff and students.'
	Competition between universities for clinical training sites (frequency=1).	'There are three universities in this province all looking for clinical training placements. This impacts on where students can go.'
Concerns within clinical training sites	Lack of support for clinical education from management /political structures (frequency=3).	'University pays money for clinical education but this is not filtered down to departments." CEOs are concerned with service delivery and don't care about education of students.'
	Inadequate staffing (frequency=3).	'Clinical posts are frozen and it takes long to replace staff.'
	Staff mobility (frequency=3).	'Staff turnover is high and we have to keep re-teaching clinical staff what to do.'
	High workload of clinical occupational therapists (frequency=2).	'Have no time for students...'
Concerns around clinical education	Poor role-models (frequency=7).	
	Poor quality clinical education (frequency=4).	'Not sure if they don't know how or they don't want to know.'
	Inconsistent marking by individual OT-CEs and between sites (frequency=3).	'Either mark too strictly or too leniently,' 'Students pass or fail based on the placement rather than their knowledge and skill.'
	Gap between theory and practice (frequency=3).	'There is a gap between theory and practice and it relates specifically to being occupation based and working outside the medical model.'
	Poor commitment to clinical education and therefore low motivation (frequency=2).	'Have to beg clinical staff to take students.'
	Labelling of students (frequency=2).	'Weak students get labelled and this gets spread through the OT network.'
	Poor work ethic of some clinical staff (frequency=1).	'...Uses work time to make cards and plan her wedding" and "work on post graduate assignments which have nothing to do with their job.'
	Lack of awareness and support of the needs of junior students (frequency=1).	'"No support around fairly routine clinical problems which are unfamiliar and socially unnerving to junior students.'

5.1.8 **Discussion**

It is clear from the information above that the challenges described in Chapter 4 are not unique to the Wits context. Clinical education at other universities is equally challenging with similar factors influencing quality. Thus clinical education challenges are more of a national than a local problem.

The most frequent challenges raised were around the clinical education process, with poor role-models being almost every training centre's greatest concern. However these results also reflect a lack of knowledge, skill and attitude to clinical education by on-site OT-CEs, as well as a lack of desire to undertake clinical education, all of which contribute to concerns about the quality. These have also been well described in the literature as challenges to clinical education [58, 111].

Lack of support for clinical education from managers was reported by a number of university participants. This has also been reported in the literature as critical for effective clinical education and will be discussed later in this chapter [10, 40, 100]. High on-site OT-CE workloads, staff mobility, problematic human resource processes and lack of time were also described in the focus groups in Chapter 4.

Pressure on clinical placements due to increasing student numbers was also evident in competition between universities for placements, and resultant transport problems that were experienced as OTSs have to move further from the campus to clinical education sites. This also limits choice of alternate clinical training sites which may offer OTSs better clinical education opportunities. Thus placement decisions are often made for logistical rather than educational reasons. These factors are also described in the international literature [58, 111, 226].

Some universities have been using the money available from the Department of Higher Education's Clinical Training Grant to support their clinical education programmes through the provision of university employed tutors/OT-CEs and raised concern about the sustainability of this funding and the likely effect on clinical education should this grant be discontinued.

5.2 STUDY 2: UNIVERSITY SUPPORT FOR CLINICAL EDUCATION NATIONALLY

There were two specific outcomes for this aspect of the study. Firstly, to examine if any of the eight universities that offer occupational therapy programmes in South Africa included any learning materials or activities in their undergraduate curricula that prepared graduates for their future role as OT-CEs (Question 3 of the university OTDs telephonic survey). Secondly, to examine the nature and extent of training and support provided to the OT-CEs' responsible for the clinical education of their final year students at each of the eight universities (Question 4 of the university OTDs telephonic survey). These aimed to answer: Research Question 3 Objective 3a (See Figure 5.1).

5.2.1 Literature Review

On graduation all OTSs take the Hippocratic Oath where they promise pass on their knowledge and skill to future generations of students [286]. While education is well recognized as a core clinical function of all occupational therapists interestingly, in both sets of the WFOT and HPCSA Minimum Standards for the training of occupational therapists, the information concerning the knowledge, skill and attitudes needed to support this central professional role is embedded in the detail of the professional competencies related to client care and not the OTSs [7, 29, 287]. Both Minimum Standards imply that students need some teaching and learning with respect to knowledge and skill, but neither detail the principles of teaching and learning necessary in an undergraduate curriculum. However, the HPCSA document entitled 'Standards of Practice-Clinical Governance' [212] which identifies the Minimum Standards for Practice, is much more explicit. In the section on 'indirect services', the knowledge and skills occupational therapists require in relation to education (Standard 1) are specifically laid out. Standard 1 describes three educational processes: 'transmitting of knowledge, skills and attitudes to the family/caregivers of clients/clients….; providing meaningful clinical education experiences to relating to direct and indirect services for patients….; presenting workshops, lectures and/or seminars to assist community members…' [98 p.7]

The only South African reference found relating to the preparation of occupational therapy students for future clinical education was a chapter in a book in by van Niekerk and Buchan entitled 'The student as supervisor' [163]. This chapter describes a peer education programme introduced into the University of Cape Town undergraduate

programme in 2000, in which final year students are responsible for the clinical education of first year students under the guidance of a qualified OT-CE. However the justification for the programme appears more closely related to teaching students human resource management and supervisory skills to manage mid-level workers, rather than to the learning of clinical education skills. The chapter reports that students were prepared for peer supervision in a joint two-hour workshop between the first and final year students, but no details of the workshop objectives or outcomes were included [163].

Unlike the USA, in South Africa neither the HPCSA nor the professional association (OTASA) has a national educational guideline for the training of OT-CEs (see Appendix A for the AOTA Education Philosophy). Each university is responsible for negotiating clinical education sites for its students, sometimes formalised within a provincial MOU/MOA, and sometimes without it. In some provinces where there is more than one university educating OTSs and there is active competition for clinical sites, a joint clinical placement negotiating forum may be in place but in others not. Universities negotiate student numbers and clinical education requirements according to their own stated and perceived needs. Different universities use different models of clinical education, with on-site clinical occupational therapists having a variety of different roles and responsibilities in the clinical education process when they have OTSs from more than one university undertaking their clinical education in that site. Each university may or may not provide support and training for their OT-CEs according to their perception of the need and their resources.

5.2.2 **Research Method**

The research method, whole population sample, research process and data collection tool, ethical consideration and data analysis process used was the same telephonic survey that as was described in sections 5.2.1 to 5.2.6 above.

5.2.3 **Results**

The results reported here relate to the last two questions of the telephonic survey namely:

To describe any educational activities included in the undergraduate curriculum to prepare students to be OT-CEs in the future (knowledge, skills and attitudes),

To describe any training provided to and support given to OT-CEs responsible for the clinical education of students from that university.

5.2.3.1 **Undergraduate preparation for the role of OT-CE**

Results will be presented under the headings of knowledge, skills and attitude.

Knowledge

Only one university reported presenting undergraduate OTSs with theoretical information that directly related to clinical education. Three universities presented OTSs with procedural information to guide peer supervision; in one case the objective is independent supervision of junior students by final year students, while in the other two instances it is peer supervision of second years under the guidance of an on-site university staff member.

Seven universities reported that they provide undergraduate students with generic information on supervision, including the principles of supervision related to the management of occupational therapy mid-level workers (OTAs/OTTs) and volunteers in therapy situations. In all cases this theoretical information is taught as part of the management component of the course, which is mainly taught in the fourth year, although three universities also teach some of this information in the 3rd year. The most common format for delivery of the information is through lectures, but other formats are also used as can be seen in Figure 5.2. Some universities reported using more than one format. The time allocation in the timetable varied between one and five hours, with a mean of 2.4 hours.

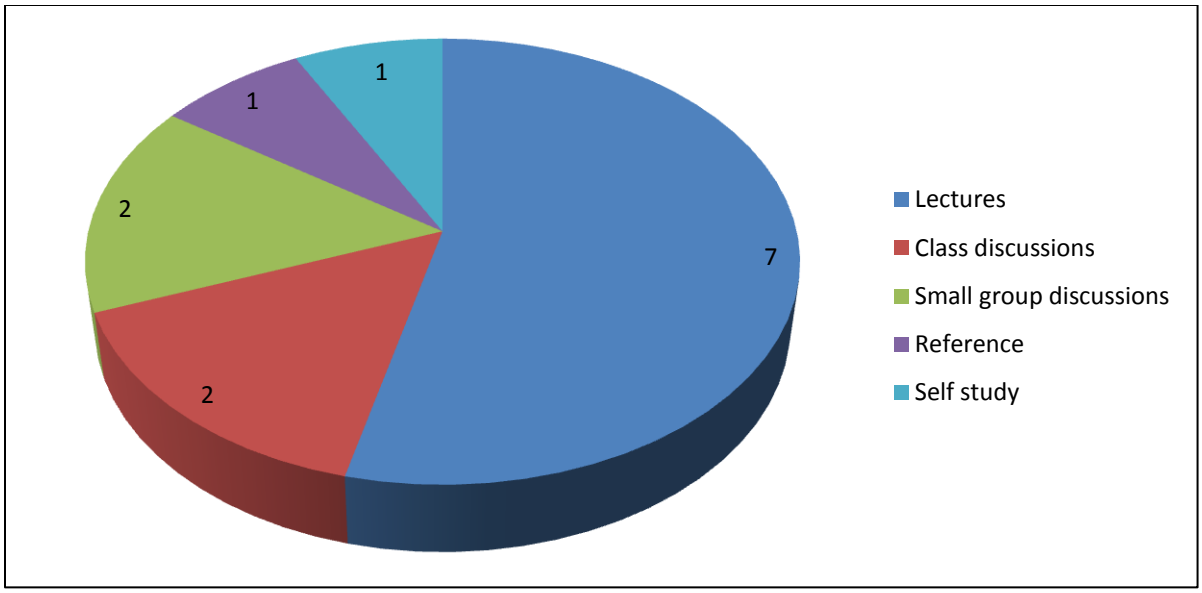


Figure 5.2: Teaching Formats used to Deliver Generic Knowledge on Supervision

Two universities reported that they examine the generic information on supervision in a theory paper every year, while four universities stated that it was examined from time-to-time in one of the written papers, but not every year. Two universities stated that this information is evaluated in an assignment, and one university evaluates the students' knowledge in small projects.

Skills

As shown in Figure 5.3 participating universities listed the following learning activities as opportunities for undergraduate OTSs to learn skills that they might use as OT-CEs when qualified. All skills are practised in the final year. However one university introduces these skills in the 1st and 2nd years and two universities also practise skills in learning activities in the 3rd year.

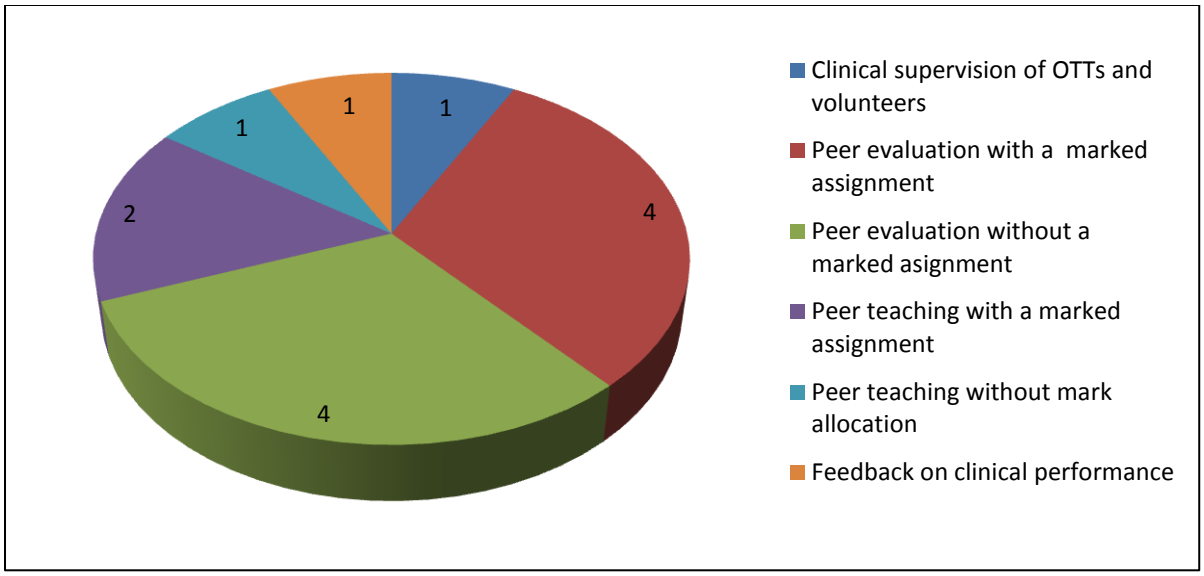


Figure 5.3: Learning Activities to Acquire OT-CE Skills

No university formally examines these skills, but one university evaluates the students' performance in their clinical education block evaluation.

Attitude

Four universities reported that they consciously tried to use affective learning to influence the students' attitude with respect to clinical education. The following attitudes were reported as being important with respect to clinical education:

Value of ethics to guide professional behaviour (frequency=6),

Professional responsibility of every qualified occupational therapist to contribute to the clinical education of students to advance the profession (frequency=2),

The need to be positive and open to education of OTSs and to contribute positively to the development of self-confidence and a professional identity (frequency=2),

Value of listening to critique (frequency=2), and

The need to be fair, supportive and understanding (frequency=2).

Six universities assumed that positive attitudes towards clinical education would be learnt by the undergraduate OTSs simply from their experience of being educated in a clinical setting by a qualified occupational therapist. Four universities used briefing and debriefing sessions in which they addressed these values and also the role of a mentor

and OT-CE, while one university taught students a model to be used specifically when giving feedback in a clinical or peer evaluation situation (sandwich model) in an attempt to influence the attitude to feedback. Six universities believed that this type of learning occurred mainly in the final year of study.

All universities agreed that what was currently being done at the undergraduate level was insufficient to prepare the undergraduate OTSs to be effective OT-CEs. However there were differing opinions as to whether this was in fact the responsibility of the universities at an undergraduate level. Three universities felt it was their responsibility while an equal number felt it was not. Two universities felt it was not their prime responsibility but that it was in their best interest to try to ensure that OTSs had quality clinical education.

5.2.3.2 **Training and support offered to OT-CEs nationally**

Three universities made a distinction between educational training and support offered to university employed OT-CEs and those OT-CEs that are employed by the clinical education sites on their training platform. The former are employed by each university on sessional contracts (less than 280 hours per year) or employed in part-time posts for approximately 26 hours a week and are paid from the Clinical Training Grant. These university-employed OT-CEs are named slightly differently by the various universities as: clinical tutors/university clinical educators/sessional clinical tutors they appear to have the same purpose.

Two universities reported that their Faculty's Health Science Education division offers a generic programme to improve teaching and learning competencies among all their academic staff. One university reported that all university-employed OT-CEs are mandated to attend this course, which is a one day attendance course with 40 hours of self-study and the submission of an assignment. An OT-CE at this university may only attend the course once. Another university reported that although this option was available, it was not mandatory for sessional staff to attend.

Two universities reported offering no training to on-site clinical occupational therapists as their universities employed sufficient clinical tutors/sessional clinical tutors who were responsible for the overall clinical education of their OTSs and were available at all sites on their teaching platform. These university employed OT-CEs had access to training

but it was not clear whether they had all been trained. The implication, although it was not overtly stated, was that this category of OT-CE was preferable, perhaps because they were answerable to the university as their employer. Although these two universities offered no training, they did offer the on-site clinical staff some information about the clinical education block requirements and the student needs during the clinical education blocks (procedural information).

The other five universities reported that the input, training and support that they offer to clinical on-site OT-CEs could be categorized as follows.

Procedural information

Five universities gave on-site OT-CEs information on the clinical requirements and expected outcomes for the different clinical and practice learning blocks.

Four universities reported giving OT-CEs a set of guidelines or a framework for the clinical evaluation of students, and input on how to complete that university's clinical evaluation form. Two universities reported routinely giving OT-CEs information on changes in curricula, and one university reported giving input on the regulations around student training as well as making explicit the roles and responsibilities of all role players in the clinical education context (university staff, OT-CEs and OTSs).

Theoretical information

Two universities reported routinely offering on-site OT-CEs information on new professional knowledge and skills that had been included in the curriculum, while four universities reported doing this on request only. One university stressed the importance of reviewing old and new professional terminology and professional frameworks/ taxonomies so that academic staff and OT-CEs had a common understanding of the terms that the OTSs had been taught and were expected to use.

One university also provides OT-CEs with input on how to manage conflict in the clinical education process.

Learning theories

Only one university reported giving on-site OT-CEs input on how students learn over the course of a clinical education block, as well as the principles of teaching and demonstrating.

Universities reported providing input for on-site OT-CEs prior OTSs starting their clinical curriculum for the year or before specific clinical education blocks. Usually this is at the beginning of the year (January/February) but for one university this is in April/May. The duration of these sessions also varied from a two-hour session to a full day. Four universities reported that this is the only session in the year, but three other reported having sessions at least three to four times per year. Two universities described their input session as initially being generic and then followed by a field-specific session.

All the universities that offer the above sessions offer them to all clinical occupational therapists that are responsible for the clinical education. One university does this session together with the students so that they can interact with the OT-CEs.

The attendance at these sessions seems to vary from university to university. One university reported that 'only the converted clinicians come, as many clinicians see clinical education as a university responsibility and not a clinical one'. One university reported that although there are no joint posts there is a MOU with the provincial health department that includes attendance at such meetings, although there is no consequence for non-attendance. The other universities request that the OT-CEs attend, but there is little to ensure that attendance ensues.

Rewards

Five universities rewarded OT-CEs with CEUs for continuous and uninterrupted clinical education, as prescribed by the HPSCA. One university pays the Department of Health employed OT-CEs a special honorarium that is not available to other OT-CEs. This is apparently historical and is a source of difficulty for the university, causing tension between those who receive it and those who do not.

One university has a number of OT-CEs who have honorary appointments that provide access to university benefits such as the library, and allows some reduction of fees in the event of the OT-CE wishing to study further.

Other support offered to OT-CEs by universities

Most universities reported that they have experienced academic staff who have built up good relationships with the on-site OT-CEs over the years and offer support, guidance and clinical expertise when it is requested. Two universities reported that they routinely disseminate professional information (e.g. from OTASA and the HPCSA) and information about congresses. Two universities reported inviting the on-site OT-CEs to attend their journal clubs. One university provides on-site OT-CEs with information on texts/journal articles and research when approached, and academic staff of another university regularly acts as case management consultants, provide staff and expertise to clinical services, and technical expertise with respect to assistive devices.

5.2.4 **Discussion**

Clinical education is central to the education process that develops and ensures clinical competence at the professional entry level. To achieve this all OTSs are required to complete at least 1000 hours under the direction/guidance of a qualified occupational therapist. All qualified occupational therapists take the Hippocratic Oath on graduation that has an embedded commitment to teaching OTSs all that you know and can do. While many commit to this promise, many do not and are reluctant as suggested in the qualitative study. Other universities are reporting in this quantitative study, that they too have OT-CEs that are reluctant. Perhaps because they do not know how and the only frame of reference is their own clinical education experience which may or may not have been challenging. So how does learning for this important role happen?

The results suggest that two universities employ sufficient academic or sessional tutors so they do not use the on-site occupational therapists for this purpose. However, the other five universities rely on on-site OT-CEs to take on this important responsibility. Since the Wits OTD does not have funds to employ sufficient academic or sessional tutors to take responsibility for all the clinical teaching the department needed to design an effective and sustainable long term plan assist OT-CEs to successfully undertake this role.

5.2.4.1 **Undergraduate education to prepare students to be OT-CEs**

Occupational therapy students receive very little knowledge and skill training to prepare them to be OT-CEs in the future. This is consistent with the HPCSA's Minimum Standards of Training which focuses on the educating of students in the fundamental knowledge and skills for professional practice [29]. Undergraduate courses are already overloaded, so the universities' reluctance to add more information, even if it is in their best interest, is understandable. It is commendable that a number of universities have introduced peer evaluation, whether for junior students or to sharpen OTSs' own evaluation skills, but this is not sufficient to support being an OT-CE in the future, as this is a professional process which takes place over time which is facilitated by the learning of discrete knowledge, skill and attitude [60, 206].

The focus groups suggested that OTSs learn about clinical education from their own experience, and that this may perpetuate a negative cycle of clinical education if it is supported by negative experiences rather than the development of appropriate clinical education, knowledge or skill. According to Finlay, perpetuation of the negative cycle of clinical education occurs when students fail to critically reflect on their experiences [288]. So perhaps a structured and properly facilitated time of reflection on clinical experience is required after each clinical education block in order to avoid this.

5.2.4.2 **Education and support to OT-CEs provided by universities**

The results suggest that universities by their own admission are not doing enough to prepare on-site OT-CEs for this task. Most universities that use on-site OT-CEs provide some support through relationships developed over time. However the education they provide to OT-CEs is intermittent rather than comprehensive and seems more procedural (what needs to be done in a clinical education block) rather than educational (how the clinical educational process needs to be developed and the knowledge and skills needed to enable this). It is probable that universities are not very clear about the nature of the educational information required by on-site OT-CEs to provide quality clinical education. To some extent this reflects neither partner understanding the complexity of clinical education as a concept and process as well as the needs of the other, hence supports the need for this research project.

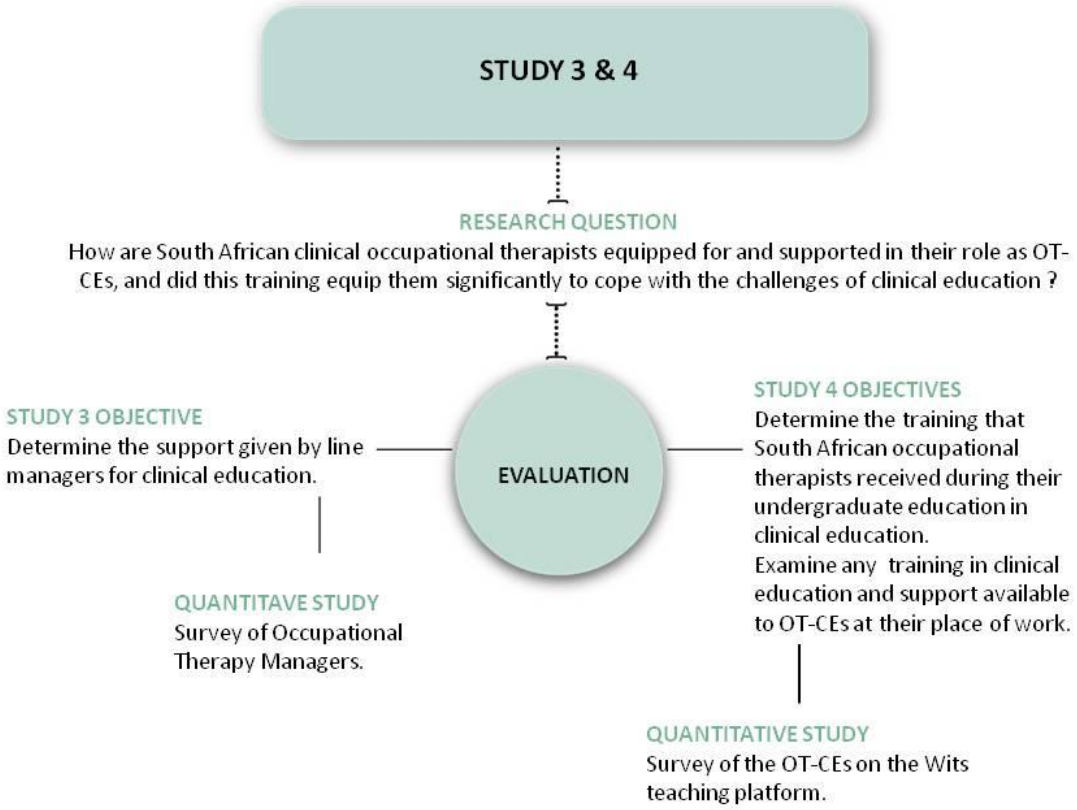


Figure 5.4: Components of Study 3 and 4

5.3 **STUDY 3**: **SUPPORT BY OCCUPATIONAL THERAPY MANAGERS**

Wits OTSs undertake their clinical education at a variety of different sites at all levels of care in both the public and private health sectors within Gauteng, North West, Limpopo and Mpumalanga Provinces. In addition, they all complete one block in a Gauteng LSEN school as well in the learning disability service delivered by the Wits OTD. Some OTSs also work in non-profit organizations (NPOs) delivering rehabilitation services. The support by management for clinical education has been reported in the literature as being critical to its success [100]. .Due to different working conditions and management structures in each of the clinical education sites, and the fact that the supervising OT-CEs had completed their undergraduate training at different occupational therapy education programmes, this aspect of the study aimed to determine:

the support given by line managers for clinical education. (Study 3, Research Question 3 Objective 3b; See Table 3.1 and Figure 5.4).

5.3.1 Opinions, Perceptions and Involvement in Clinical Education by Clinical Education Site Heads/Managers

Professional education of OTSs occurs in a complex health delivery context within a rapidly changing political, social and economic climate [84, 92]. A partnership is needed between the academic ODT and the specific clinical education site to successfully achieve this [84]. Although the National Department of Health Human Resources Plan [212] and the MOA between the University and the Gauteng Health Department give some assurance that clinical training opportunities will be provided within the Public Health System, how this should be achieved is often not filtered down to the health facility management or to occupational therapy department heads/managers. In the Gauteng Department of Education no such assurances are in place, and principals of the LESN schools who all employ occupational therapists are increasingly reluctant to allow their staff time to provide clinical education for OTSs. They are happy for OTSs to undertake clinical education in their facilities, but require the university staff to do the clinical education. Besides academic staff not having time to do this, there are some ethical concerns about giving clinical guidance to an OTS when the university OT-CE has no access to the background information or the therapy plans for specific children or had the opportunity to work with such a the child.

Thus the purpose of Study 3 was to explore the attitude and involvement of the facility and departmental management in the clinical education of OTSs and how this influences the clinical staff that are involved in clinical education.

5.3.1.1 Literature review

Many layers of management within and outside of the clinical education placement influence the success of the placement at a professional education site [289]. Occupational therapy department heads are considered to be middle managers, answerable to the organization's senior leadership as well as responsible for workers within the occupational therapy team [290].

The occupational therapy head of department is responsible for developing a culture of education to facilitate both continuing professional education (CPD) of staff as well as

clinical education of OTSs [290]. Support from organisational and facility leadership enables the occupational therapy managers to access and develop the key constituents essential to a clinical placement as described by Alsop and Ryan [291]. These key constituents include: i) access to learning opportunities; ii) human resources such as an OT-CE, access to members of the multidisciplinary team, iii) non-human resources such as work space, information technology and academic resources iv) the organisation of the placement including organisational structures, service and educational philosophy; v) defined standards of service and quality assurance measures; and vi) collaborative relationships with the academic staff to facilitate a positive student friendly clinical education experience [291-293]. However, the day-to-day clinical education process is in the hands of the on-site occupational therapists who also have to deliver occupational therapy services to clients who may or may not pay for their occupational therapy service [25].

Different clinical education sites have different organizational structures subject to their staff complement, with management functions either dedicated to a single senior therapist or devolved to other staff. The key management tasks associated with being a manager where clinical education is provided are: developing a positive learning environment; preparing staff for their involvement in the clinical education programme; assigning clinical education responsibilities and ensuring clarity about the educational outcomes that need to be facilitated and met; ensuring there are sufficient resources to support the educational process; orientating students to the placement, the placement policies and service outcomes; overseeing student education, monitoring and dealing with critical incidents, and finally evaluating and reviewing the success of the placement for clinical education [289, 292].

5.3.1.2 **Research method**

The research method was a descriptive, quantitative and cross sectional; survey design as the information gathered aimed to describe the role-played by the departmental heads and facility management in the clinical education of OTSs at the clinical sites currently on the Wits clinical training platform. As the data were collected at a single point in time, the results only reflect the situation at that time.

5.3.1.3 **Population and subject selection**

As there were only 22 clinical education sites, all occupational therapy heads/managers were invited to participate. Thus the whole population of occupational therapy clinical heads/managers was purposively sampled [294].

As the response rate to surveys is reported to be notoriously low [184], academic staff and Provincial Assistant Directors were asked to remind department heads/managers to return the questionnaires so as to minimise the non-response bias. It was anticipated that since this was a specifically targeted survey a 75% return rate would be considered acceptable [295].

5.3.1.4 **Data collection tool**

A questionnaire was specifically designed for this study. The questionnaire was designed in four parts as described in Table 5.2 below.

Table 5.2: Questionnaire Details

	Focus of Questions	**Type of Answers Required**
Part 1	The clinical training site	Tick boxes
Part 2	Clinical training of OTSs at the site	3 Tick boxes 4 Qualitative answers to open-ended questions
Part 3	Criteria for deciding which staff members supervise the OTSs	Tick boxes
Part 4	Benefits and challenges of involvement in clinical education of OTSs from the manager's perspective.	Qualitative answers to open-ended questions

The face and content validity of the questionnaire were examined by asking experts to evaluate the face or content validity of the questionnaire. As the questionnaire was used for the purposes of this research only no further psychometric were examined [284, 285]. Thus twelve academic staff and one outside evaluator to comment on the format, the clarity of the instructions, the appropriateness, sequencing and clarity of the questions, the ease of answering and time needed to complete the survey [184].

The questionnaire was reformatted based on the comments regarding the layout and possible electronic usage, and some spelling and grammatical errors were corrected (See Appendix F.1).

The second draft of the questionnaire was piloted. It was sent to two heads of occupational therapy clinical education sites not on the Wits clinical teaching platform. They were asked to complete the questionnaire and comment on: the time the questionnaire took to complete; the relevance of the questions in light of the purpose and objectives of the research; the ease of answering and any ambiguous or unclear questions.

Both departmental heads reported that the survey took less than 10 minutes to complete. They reported that the questions were relevant and succinct. A single formatting error was corrected.

The final questionnaire was sent to a member of the ethics committee for approval as described in the conditions of the ethics approval.

The approved questionnaire was copied onto a compact disc, printed as a hard copy and distributed as described below to the heads/managers of clinical education sites.

5.3.1.5 **Data collection process**

A letter of invitation was sent the heads/managers of clinical education sites together with the information sheet (See Appendix F.4 and F.5) as well as the approval from Gauteng Departments of Health and Education. The final questionnaires were mailed or delivered by academic staff or students (See Appendix F.2). The completed questionnaires were returned to the departmental secretary so there was no contact between the researcher and the participants. The departmental secretary removed any identifying information from the returned questionnaire so anonymity was assured [184].

5.3.1.6 **Data analysis**

The responses in tick boxes were transferred onto an EXCEL spread sheet and analysed using descriptive statistics including means, ranges and frequency. The data were reported in a single table.

The responses to the open-ended questions were recorded in tables, one for each open-ended question. Similar responses were grouped together and the frequency recorded.

5.3.1.7 **Results**

The occupational therapy head/manager questionnaire was circulated to twenty-two clinical education sites. One response was returned for all three urban public health sites as they all fall under the same department head/manager. Thus the return rate was fourteen out of nineteen (73.7%), which is just below the return rate that was intended.

No demographic data was requested for this study. The results of the questions answered in a tick box will be reported first, followed by the open-ended questions.

Table 5.3 describes the occupational therapy services per field of practice at the responding sites and the sectors administering the clinical education sites.

Table 5.3: Fields of Practice and Sectors Administrating Service

	Comments
Nature of services at responding sites	Five sites offered OT to mental health care users (MHCU) only, Four to clients with physical problems only, One to children only, 1 One site offered services to MHCUs and clients with physical conditions. The remaining three sites offered a combination of services to MHCUs, clients with physical problems, children and public health services.
Sectors of responding sites	Nine sites fell under provincial health departments, Two were in private practices or organizations for profit, One was an NPO, and Two were classed as 'other'. No heads responded for the provincial education department.

The highest number of returns was from mental health practice sites and the lowest paediatrics. While OTSs may gain clinical experience in any one of the sites that list all four fields of practice, OTSs would only participate in all four if they were on a rural or urban public health clinical education block.

As can be seen from Table 5.3, the largest number of clinical education sites was administered by the provincial health department, and the smallest number by a NPO.

The results suggested that a total of 39 (45.3%) clinical staff members were involved in clinical education of the final year OTSs in the fourteen clinical education sites. The

number of OTSs per site varied from one to six, with a mean of 2.8. However, the same sites reported that 47 (54.6%) occupational therapists were not involved in the clinical education of fourth year OTSs. Four sites reported that all their staff were involved in clinical education, but in other sites the number of staff who were not involved varied from one to fifteen with a mean of 4.7 staff members not being involved in clinical education of fourth year OTSs.

Three respondents did not complete the question on the number of OTSs that had received clinical education in their department in the previous year. From the remaining responses a total of 118 OTSs were involved in clinical education in the remaining 11 clinical education sites, but the total number of OTSs varied from 2-35 per site per year, with a mean of 10.7.

Twelve responding clinical education sites reported an association of at least five years with the Wits clinical education programme. The remaining two sites had been involved for less than two years.

Facility management was involved in the clinical education of students in only three of the fourteen responding sites (21.4%) and only one site had a formal educational policy (7.1%).

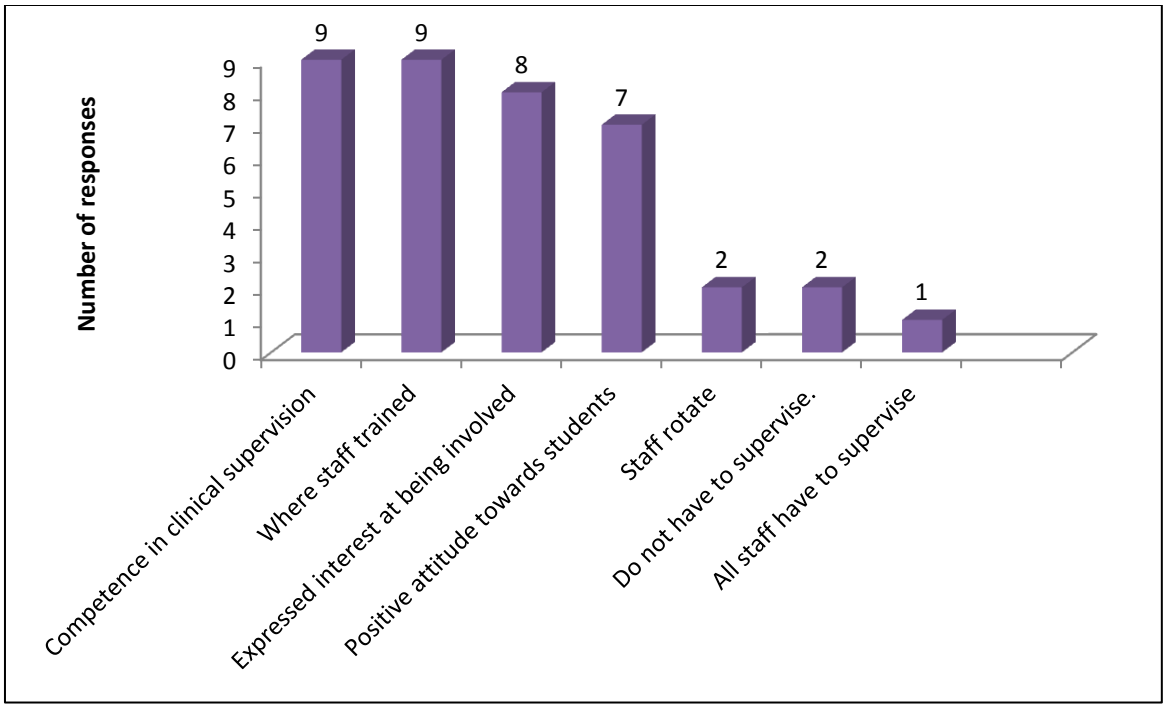


Figure 5.5: Criteria used to determine which Staff are OT-CEs

Figure 5.5 reports that competence in clinical education and where staff trained are the most frequently used criteria (both 9 out of 14 [64.3%]) for deciding which staff are involved in clinical education, followed by staff wishing to be involved (8 out of 14 [57.1%]). In two sites staff did not have to be involved in clinical education if they did not wish to (2 out of 14 [14.2%]) and in only one site were all staff required to be involved with clinical education of OTSs (7.1%).

The responses to the first open-ended question that asked how 4th year OTS clinical education was managed in each clinical education site can be found in Table 5.4. There were thirteen responses that have been organized into two groups: who does the clinical education and a list of the management tasks related to clinical education.

Table 5.4: Management of Clinical Education at the Responding Sites

	Responses	Frequency
Who is given the responsibility of the clinical education within a department?	In departments with only one member of staff, they do the clinical education or share it with university OT-CE.	2
	Overall clinical education is overseen by the senior staff.	2
	Most experienced staff.	2
	Are selected according to the university and departmental guidelines.	2
	Overall clinical education is the responsibility of one person but marking and guidance is done by the OT responsible for the client.	1
	Most competent staff. All other OTs, OTAs and OTTs guide the students in their area of expertise.	1
	Allocated OT-CE.	1
	Clinical education is rotated between the permanent staff.	1
	Single OT in consultation with OTAs and OTTs who are competent and experienced working with students. Students work closely with OTAs and OTTs throughout block.	1
	Only clinicians with six months experience do clinical education under the guidance of a more experienced OT.	1
Management tasks	Orientation including information packs, structured weekly timetables and schedules to guide students in different areas of practice.	2
	Contact person for the university OT-CEs: communication, monitors block and case presentations and examination dates	1
	OTAs or OTTs are consulted about possible clients and give OT-CE a final list of clients.	1

As can be seen from Table 5.4 the frequencies were all low. Thus, who was allocated to be the on-site OT-CE was dependent on the departmental circumstances. Where an occupational therapist worked single-handedly then he/she had to do the clinical education in consultation with the university educators or OT auxiliary staff. Where there were two or more staff members the clinical education was allocated, shared or rotated. Where there were more staff, departments were able to be more selective about who managed the clinical education programme and who did the clinical education.

Orientation of the students within the clinical education site was mentioned as a management task in two clinical sites.

The roles of the OT department heads/managers in clinical education programmes are outlined in Table 5.5

Table 5.5: Roles Heads/Managers Played in the Clinical Education

Role	Frequency Reported
Logistical role	6 [42%]
Supportive role	5 [35.7%]
No role	4 [28%]
Active in clinical education	3 [21%0]
Reporting to Hospital management	1[7.1%]

The logistical and supportive roles had the highest frequencies. The supportive role heads/managers played included supporting the OT-CEs to solve problems and discussion of OTS issues, while the logistical role covered organising accommodation, transport, home and resource visits, making policies and procedures available to the students, making sure that students have the resources for their training (materials, space and finance), liaising with the university, and attending the university clinicians' meetings.

The respondents reported that the number of fourth year OTSs that their clinical education site was able to accommodate was historical, determined by the university, or based on some limitation within the site (See Table 5.6).

Table 5.6: Procedures for Determining Student Numbers

	Responses	Frequency
Historical	Decision was made long ago	1
	Clinics take 2-3 students per block.	1
University decides	University negotiates the number of students subject to either departmental conditions or CEO approval	3
Limitations within site	Staff available to undertake the clinical education 1:1 or 1:2 staff to student ratios	6
	Bed occupancy and appropriate clients	2
	Accommodation	2
	Experience in clinical education (may take more next year)	1

The factor with the highest frequency limiting the number of fourth year students that a clinical education site was prepared to accommodate was the reluctance to exceed a 1:1 or 1:2 staff: student ratio (frequency of 6 [42.8%]). Only one head/manager suggested that as they had more experienced staff they might consider taking more students in the future.

When asked if the nature of communication with and support of the university staff influenced the clinical site's willingness to accommodate students, four respondents felt that it did not influence their willingness to accommodate students, while one felt that negative communication might influence her department's willingness to accommodate students. Nine respondents reported that ineffective communication would be a problem as they would be unsure of the clinical education block requirements and expectations and they would not be able to support their staff. Three felt they would not be able to plan if the communication of information was not well organised and sent out in advance, they would lack insight into the clinical education needs of students, and would not be able to develop better clinical education skills.

One respondent reported that the clinicians meetings were an important communication channel between the university and the clinical education sites.

The benefits that clinical heads/managers of departments listed are described in Table 5.7. Although asked to give the five most important benefits the average response was

3.8. Most benefits were described in two categories: in terms of what the department had to gain from clinical education of OTSs and benefits to the OTSs.

Table 5.7: Benefits to the Clinical Departments

	Benefits	Frequency
Benefit to the department	Assistance with client care: assessment and treatment of clients (with special needs, low functioning, assistive devices), extra hands to help with load and to keep clients from being discharged.	14
	Ensures that staff are kept up to date, staff gain experience and students bring new perspectives to clinical issues.	11
	Marketing and recruitment of new staff.	6
	CEU points.	3
	Relationship and networking with Wits OTD.	2
	Recognition from their medical colleagues within their hospital/clinic.	1
Benefits to students	Input into student development and development of the profession (empowerment, being role-models, sharing of knowledge and expertise).	11
	Improving skills in client care.	1
	Large selection of clients with clear pathology.	1
	Opportunity to work independently.	1
	Exposure to working with limited resources.	1

As can be seen from Table 5.7 more benefits to the departments were listed than to the OTSs. The greatest perceived benefit of clinical education to the clinical departments was the assistance the students gave to client care (frequency of 14) followed by ensuring that staff are kept up to date. Recognition from medical colleagues at their place of work for involvement in clinical education was rated the lowest. The greatest benefit to students was thought to be the input by on-site OT-CEs to their professional development, including being good role-models.

Table 5.8: Challenges Associated with Clinical Education

	Challenges	Frequency
Challenges related to the sites	Time clinical education takes on top of the staff's other responsibilities, especially marking.	8
	Staffing issues (lack of experience, high turnover, staff opposed to clinical education)	6
	Client availability (appropriateness of clients, willingness to be involved in clinical education, clients with problems relative to what students have to learn, client loads, early discharge)	5
	Limited resource allocation: materials, space and transport	3
Challenges related to students	Poor understanding of procedures	1
	Poor ability to work with the multi-disciplinary team	1

Table 5.8 presents the challenges listed by the department heads/managers. Again, they were asked to list the five most important challenges. One head said that there were no challenges and the other heads listed an average of 1.7 challenges. Again, the challenges, like the benefits, can be categorized as those that were associated with the department and those associated with the OTSs.

The greatest challenge listed was staff finding the time to do the activities associated with the clinical education role over and above their other duties and responsibilities especially marking (frequency: 8). Staffing issues and client availability also provided moderate challenges (6 and 5 respectively). Students' understanding of procedures and not being able to work with the multidisciplinary team were the only two challenges related to the OTSs which both had a low frequency.

5.3.1.8 Discussion

Although the response rate was only 73.3%, which was slightly lower than the anticipated 75% for a targeted group, it was considered to be satisfactory given the typical response rate estimate of 65% [184]. The reason that none of the department heads working in Learners with Special Needs (LESN) schools responded is assumed to be because the questionnaire was mailed at the beginning of the September which coincided with school vacation and the return date was just after the commencement of the subsequent school term.

With the exception of paediatrics, all fields of practice were represented in the sample, and the higher number of public sector facilities is consistent with the academic department's mission to train predominantly in the public sector, in keeping with the needs of the country.

Most heads/managers reported many years of involvement with the clinical education of students, and only two had recently become involved.

The fact that only 39 (45%) of occupational therapists participate in the clinical education of OTSs is interesting but also concerning. It is interesting that there does seem to be a selection process which determines which staff become OT-CEs, with some criteria that are considered: competence, where the therapist trained and their desire to be involved. While competence is described as an important criteria for involvement in clinical education in the international literature how this competence is determined is uncertain [60]. These criteria are more explanatory than the responses evident in Table 5.4 which seemed to indicate that the decision as to who becomes an OT-CE is placement specific. Concerning, from the university's perspective, is the low number of staff involved with clinical education of OTSs which restricts the numbers of OTSs at a clinical education site as well as the development of a greater pool of possible OT-CEs and the continuous need for re-education, as the knowledge and skill of clinical education is concentrated in so few individuals. It is probable that there are a number of occupational therapists who are not currently OT-CEs and who do not wish to become OT-CEs and they would be unlikely to come for any clinical education related training. However the overriding benefit of clinical education of OTSs is reported to be that OTSs assist with the service delivery, which seems to contradict the limiting of OTS numbers.

The number of students trained in the various sites varied considerably, with two being the lowest, 35 the highest, and an average of 10.7, which is somewhat more than the 1-10 average reported for Australian clinical education sites [225].

The involvement of the facility management in the training of occupational therapy students is low, with only one head of department being required to report on the student education programme. The involvement of clinical heads/mangers in the departmental clinical education programme also appears low, with half the respondents only having a

logistical role, four [28%] having no role and three [21%] having a supportive role. While the clinical education-coordinating role may well be delegated to other staff, the apparent lack of involvement and the fact that only one facility has an education policy seems to suggest there is questionable managerial input into the on-site clinical education programmes.

The three reported benefits of involvement in clinical education with the highest ratings were: students help with client care and the clinical load [100%]; staff are kept up to date (11 [78.5%]) and input into the student and development of the profession (11 [78.5%]). This finding is quite different from the research by Thomas, Dickson, Broadbridge, Hopper, Hawkins and Mc Bryde who found that Australian occupational therapists considered the following to be the top benefits of being involved in clinical education of students: potential for recruitment [74%] and development of staff supervisory and clinical reasoning skills [71 and 70% respectively] [225]. The fact that recruitment is not high on the list of benefits for South African departmental heads/managers may be because recruitment for the post-qualification community service year is managed centrally by the National Department of Health with the department heads having no say in who is allocated to work in their facility.

The significant challenges stated by the respondents were: the time demands of clinical education, staffing issues and client availability. A lack of time was also considered to be a challenge in the research by Thomas et.al, while the highest ranking challenge by Australian OT-CEs was lack of physical space and concerns around the students' capabilities [225]. The research by Thomas et al reported staffing issues and workload pressures to be barriers to clinical education rather than just challenges [225].

5.4 **STUDY 4**: **OT-CEs' VIEW OF TRAINING AND SUPPORT IN CLINICAL EDUCATION**

The purpose of this third survey in Study 4 was to describe quantitatively the current OT-CEs' perceptions of what they had learnt about clinical education: in their undergraduate training, from the Wits OTD's clinical educators meetings; the support received in their OT-CE role from their current and previous place of work, from the university and their colleagues (Research Question 3 Objective 3c, See Figure 5.3).

5.4.1 **Research Method**

The research method was again a descriptive, quantitative and cross sectional survey designed to describe OT-CE's perception on the source of their clinical education knowledge and support. Again, the survey was cross sectional in that the data were collected at a single moment in time.

5.4.2 **Population**

Whole population sampling was again used as all on-site OT-CEs on the Wits teaching platform were invited to participate in the study. The exact number of OT-CEs was uncertain at the time of the survey. An estimated number of 48 OT-CEs was calculated from a list generated from the student clinical report forms for the period January to July, which had been signed by the OT-CEs. However a number of OT-CEs on the list were known to have changed jobs, moved out of the province or out of the country, with no easily accessible follow up address. The invitation to participate in the study was therefore circulated via the heads of departments, assuming that the department heads would be aware of which members of staff were involved in the clinical education of the fourth year OTSs. Thus, those that were invited to participate were those OT-CEs still employed in sites on the clinical teaching platform.

The non-return risk was anticipated to be high, as the specifically targeted group was quite mobile as described above. Thus a return rate of 60% was felt to be achievable, which is recognized as acceptable for a survey [184].

5.4.3 **Data Collection Tool**

The researcher developed a survey to collect the data. The questions in this third survey related to the objective 3c of this component of the study (See Figure 5.3) and collected

data in four parts. The questions were informed by the literature and results of the university survey reported in the earlier part of the Study 2 (See 5.3).

This survey consisted of four sections:

Section 1	Recorded demographic data including age, training, job status and experience of clinical education.	Data were recorded in tick boxes.
Section 2	Collected data on the knowledge and skills the OT-CE perceived they had acquired from their undergraduate training and from Wits' regular clinicians meetings, other support gained from the university educators, and training and support that was available in their workplace and from their colleagues.	Data were recorded in tick boxes.
Section 3	Collected data on the OT-CE's perception of the benefits and challenges of being an OT-CE.	Data were recorded in tick boxes.
Section 4	OT-CEs were asked to consider, what, in their opinion, would contribute towards making the clinical education more beneficial to themselves and the OTSs.	A single open ended question.

The first draft of the questionnaire was sent to an outside expert and twelve university educators who were asked to critique the questionnaire in terms of its purpose and give feedback on the questions to establish face or content validity [184, 284, 285]. Again experts were used to evaluate the face or content validity of the questionnaire were asked to consider the:

- Formatting and sequencing of the questions,
- Understanding and clarity of each question,
- Level of complexity and the language of each question,
- Applicability of the question to collect the data required [184].

The questionnaire was redrafted based on the feedback from the experts. Spelling and typographical errors were corrected. The layout was adjusted for possible electronic usage. Instructions were made more overt by placing then in a separate section. All questions were numbered and some questions were reformatted to make understanding easier. A number of items were added. The second draft was re-sent to the outside expert for final correction and one item that had been added was excluded because, although it was of interest, it was outside the scope of the study (See Appendix G).

The final draft was then piloted [184]. It was sent to two heads of occupational therapy departments involved in clinical education of OTSs but not on the Wits clinical teaching platform. They were asked to identify two staff members (n=4) to complete the survey and comment on:

- the time the survey took to complete,
- the relevance of the questions in light of the purpose of the survey,
- the ease of answering,
- any ambiguous or unclear questions.

Both departmental heads reported that the survey took their two staff members less than 15 minutes to complete and reported that the questions were relevant and succinct. The names of the provincial posts were changed in line with the OSD and a spelling error was corrected.

The final draft of the survey was sent to a member of the ethics committee for approval as prescribed in the conditions of the approval. (See Appendix F for the revised ethical approval).

5.4.4 Data Collection Process

The approved final questionnaire was copied onto a compact disc as well as printed as a hard copy so that OT-CEs could choose to complete and return the survey electronically or in a hard copy format. Copies of the information sheet, ethical approval from the Wits University Human Ethics Committee (Medical), Gauteng Department of Health and Department of Education were distributed as described above together with the questionnaire to the heads of departments of all fourth year student clinical education sites. No consent form was included as consent to participate was assumed if the completed questionnaire was returned.

Heads of departments were requested to distribute the forms to their clinical staff who had been OT-CEs of fourth year students during the past year.

Completed questionnaires were returned to the departmental secretary, who was not involved in the research, by fax, email or sent back to the department with OTSs or academic staff. The departmental secretary removed any identifying marks from the

completed questionnaire before returning them to the researcher for data capturing and analysis.

5.4.5 **Data Analysis**

The data were analysed in the following ways:

The responses in all sections that were marked in tick boxes were analysed descriptively using tables, bar graphs and frequency tables.

The responses to Sections 2 and 3 of the questionnaire were compared to determine if there was a significant difference in the responses based on age (under and over 30) or the university where the respondent attained their undergraduate education (Wits versus the other 7 universities). Since the sample size was small the non-parametric Fisher's exact two tailed test was used [296].

The responses to the single open ended question were recorded in a table, with similar comments grouped and the frequency recorded.

5.4.6 **Results**

The estimated 48 questionnaires were circulated, 43 were returned. All 43 were included in the results. This represents a return rate of 89.5% which was much better than was anticipated.

The results will be reported according to the structure of the survey described above:

Section 1: Demographic Data

Figure 5.6 describes the ages of the 43 respondents. Almost all respondents were under forty years of age (98.6%), with 67.4% under thirty.

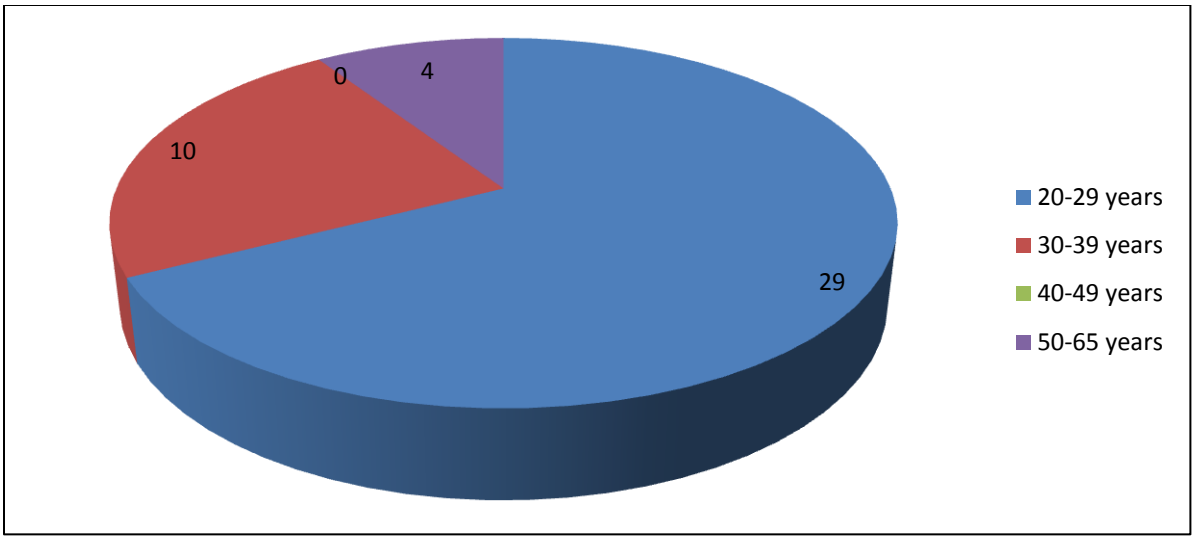


Figure 5.6: Ages of the OT-CE Respondents

Figure 5.7 reports where the respondents completed their undergraduate occupational therapy qualification. It can be seen that the majority of respondents working in the training sites used by Wits received their undergraduate training at Wits (53.5%). No respondents had completed their degree at the University of Kwa-Zulu Natal and only one graduated from the University of Cape Town.

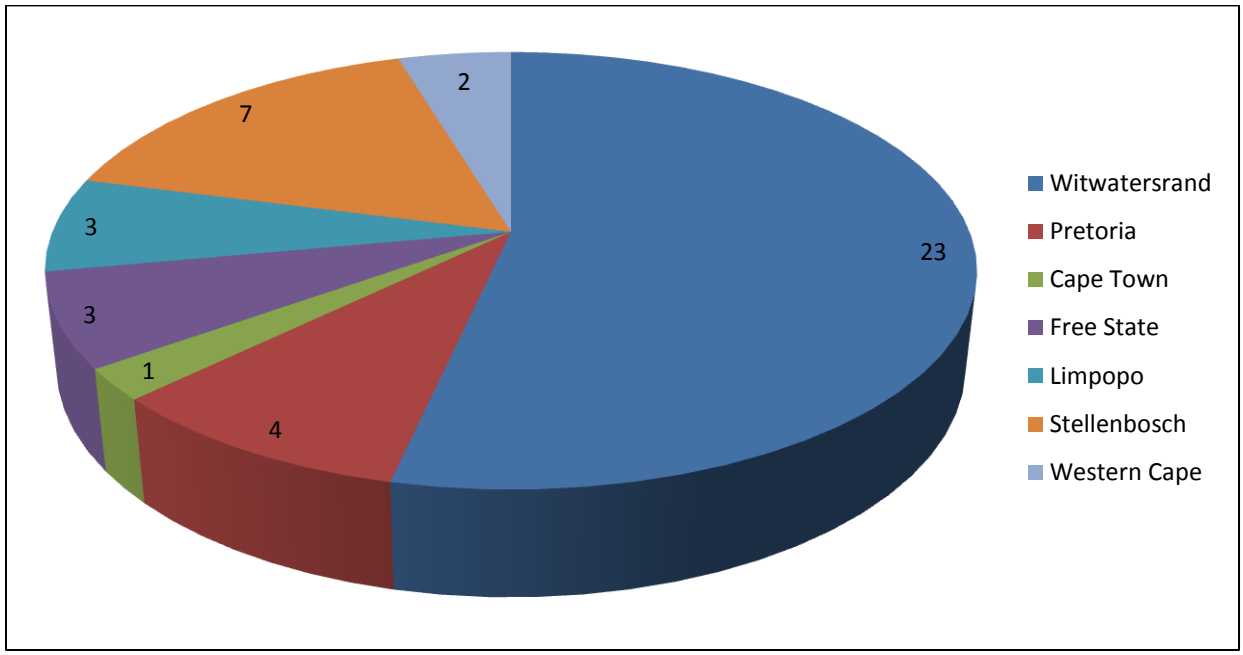


Figure 5.7: University where Respondents Attained their Undergraduate Qualification

Figure 5.8 shows that 58.1% of respondents had less than five years of experience and the highest number had less than one year's experience. Only 11 of the respondents had more than 10 years of experience (25.6%).



Figure 5.8: Years of Experience of the OT-CEs Respondents

The fields of practice in which the respondents worked are described in Figure 5.8. Some respondents worked in more than one field of practice. The respondents were evenly distributed between the three well-established fields of practice and only six worked in the public health field that is an emerging field of practice.

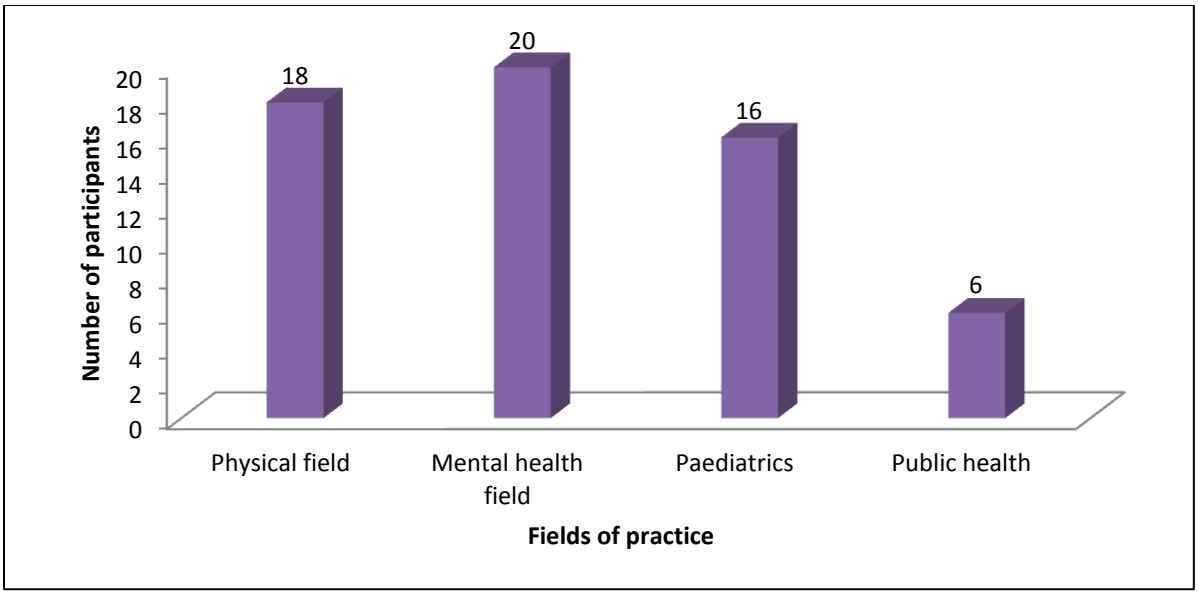


Figure 5.9: Fields of Practice in which the Respondents Worked

Figure 5.10 demonstrates that most of the respondents worked in the public health sector (65.1%) and only one worked for a NGO/NPO (2.3%).

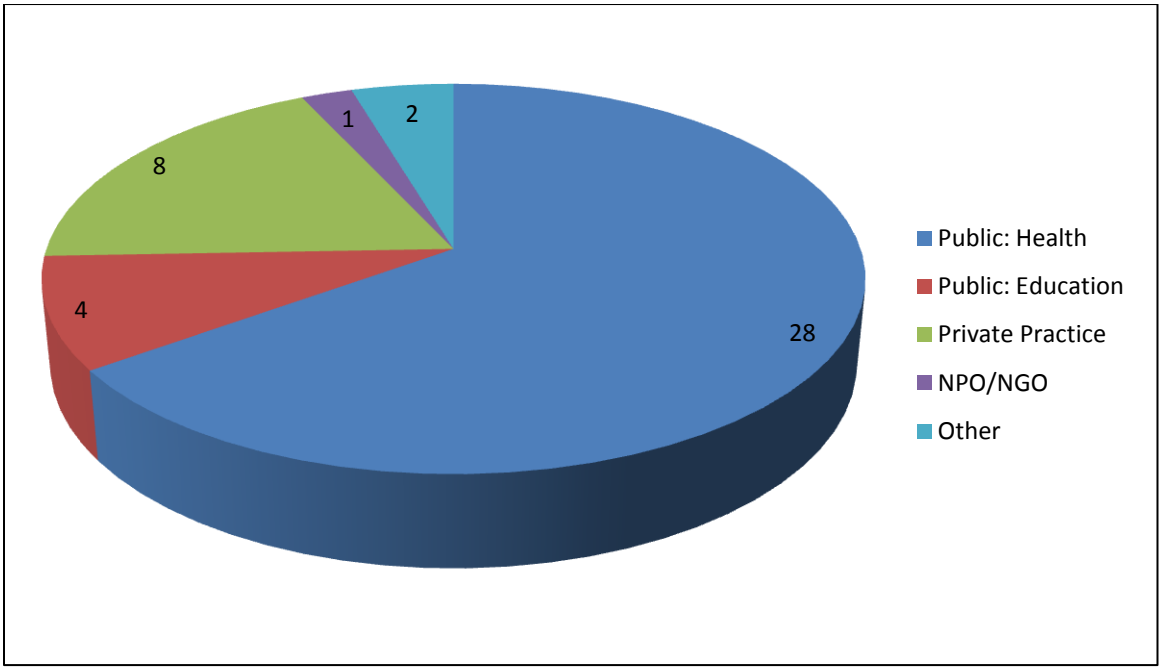


Figure 5.10: Sectors in which the Respondents Work

Of the 43 respondents 42 (97.7%) reported that they worked full time. Twelve respondents (27.9%) reported that they did not work at the clinical education site full

time: one respondent reported that she worked only one full day per week and a second worked only two full days at the clinical education site. The remaining ten worked at the site for only half a day: 4 reported working one half day per week, 2 reported working two half days per week, two reported working three half days and one respondent each worked 4 and 5 days in a week respectively.

Respondents reported that in the last year they had been responsible for the clinical education of 303 students. The number of students varied per OT-CE. Figure 5.10 shows that most OT-CEs had been responsible for less than ten students in the last year but four OT-CEs had collectively been responsible for 88 students (29%).

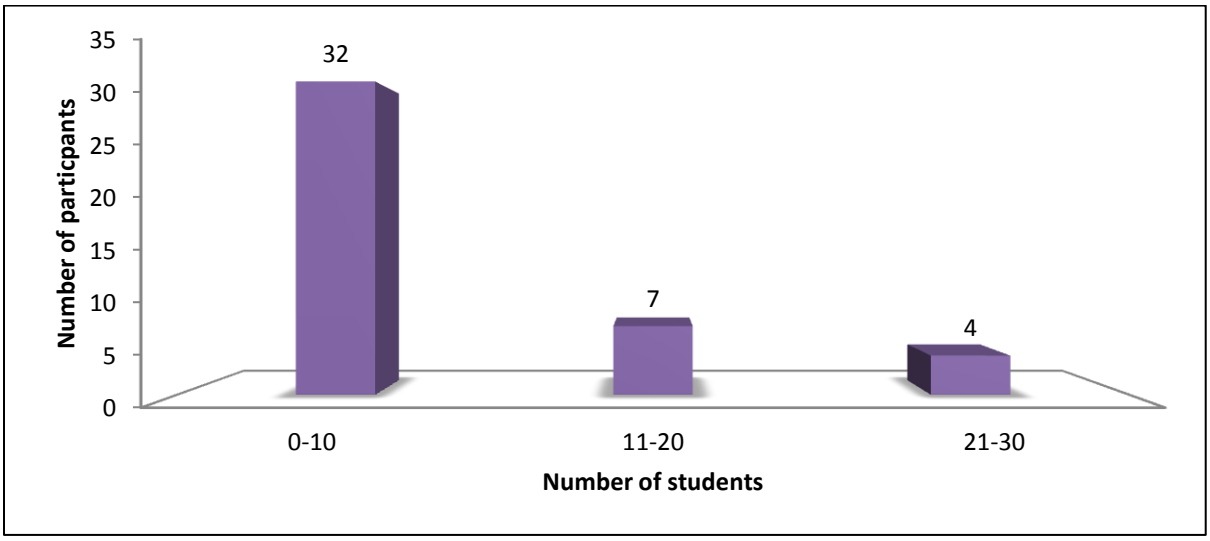


Figure 5.11: Distribution of Students between the Respondents

Forty-two respondents reported that the smallest group of students in a single clinical education block during the last year had been one, while a single respondent reported that her smallest group had been four. The maximum number of students in a single clinical education block was reported to be five while 12 respondents reported that they had never had more than one student at a time. Figure 5.12 reports on the highest distribution of students to a single OT-CE in a single clinical education block.

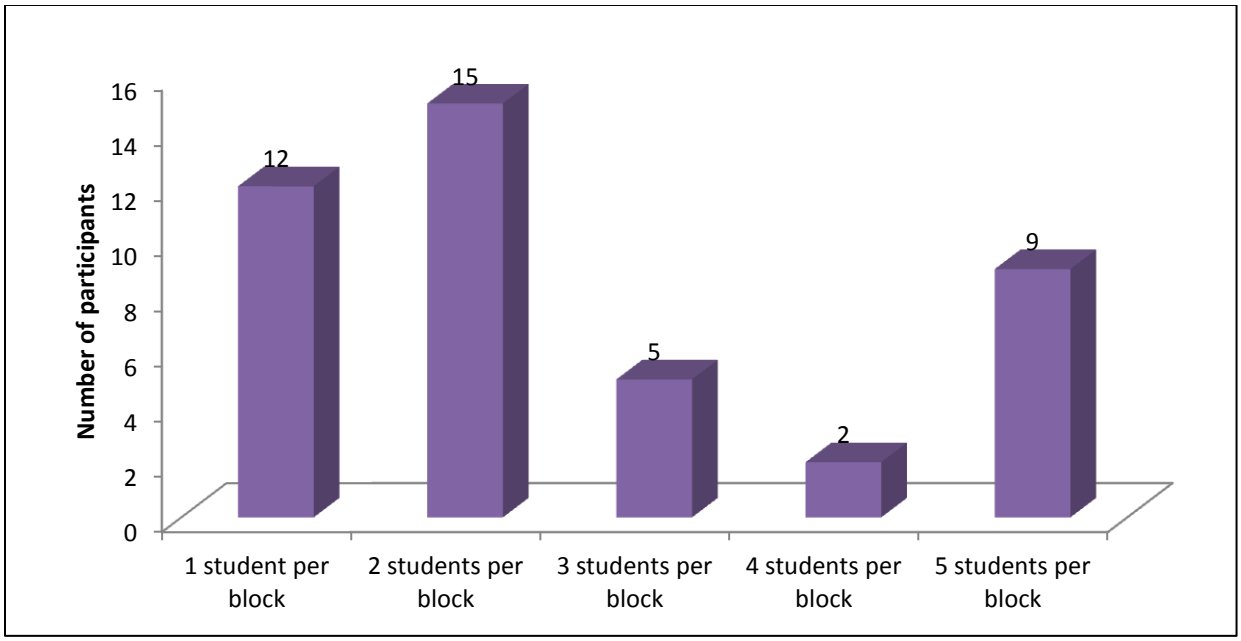


Figure 5.12: Distribution of Students to a Single OT-CE Respondent in the last year

Section 2: Knowledge and skills acquired from their undergraduate training and from the Wits university department

Figure 5.13 shows that 33 respondents (76.7%) had received theoretical information on adult education during their undergraduate course and 26 (60.4%) felt they had been taught general theory on supervision. Only 13 (30.2%) respondents believed they had learnt information on clinical education ethics. A minority of respondents (7 [16%]) felt they had learnt specifically about the clinical education of occupational therapy students during their undergraduate training.

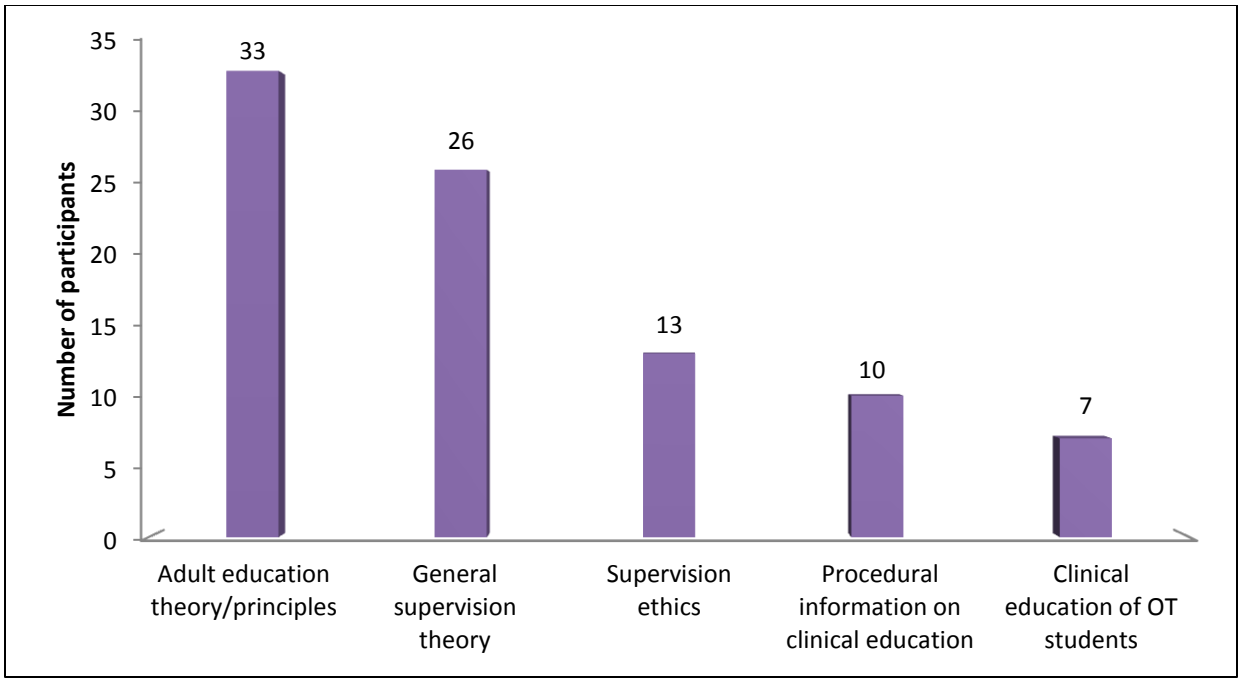


Figure 5.13: Theoretical Knowledge Gained from Undergraduate Courses during the last year

Figure 5.14 reports the number of participants who answered yes to the items listed. Thirty-three (76.7%) respondents perceived that they had been taught the skills of peer evaluation during their undergraduate course, but only 18 (41.8%) had learnt the skills pertaining to peer supervision.

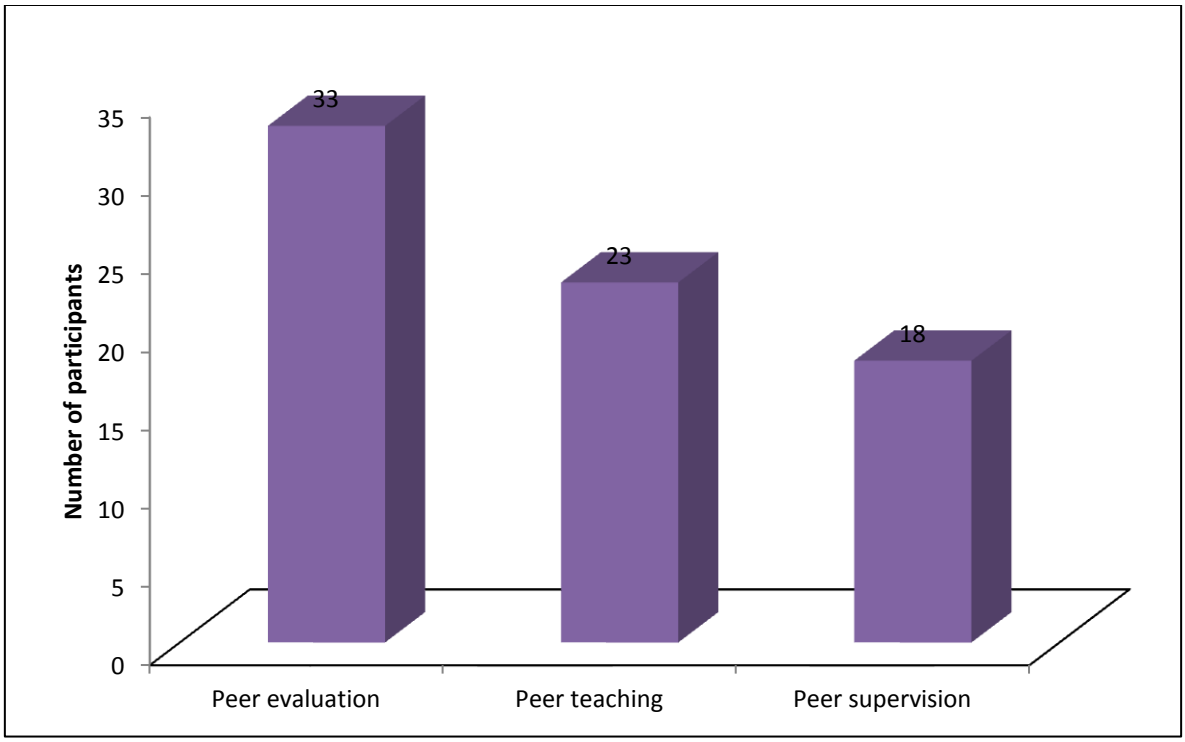


Figure 5.14: Skills Related to Clinical Education Learnt in Undergraduate Courses

Figures 5.15 a, b and c record the respondents' perception of the information they gained from the Wits OTD with respect to the 22 items listed on clinical education (items that were marked yes).

There were only seven items that more than 50% of the respondents felt they had received information on from the Wits OTD. The remaining fifteen items were marked yes by only between 4 and 15 respondents with a mean of 8.8.

The six items that were marked yes the most frequently were: information about the block requirement (41[95.3%]), marking of treatments (31[72.1%]), marking of assessments (30 [69.7%]), changes made to the curriculum (27[62.7%]) and marking of written work (26 [60.4%]). The six items that the least number of respondents marked yes were: clinical education theory (8 [18.6%]), educational philosophy (8 [18.6%]), helping students to learn from feedback (8 [18.6%]), helping to develop a professional identity (8 [18.6%]), facilitating bright students (5 [11.6%]) and dealing with student diversity (4[9.3%]).

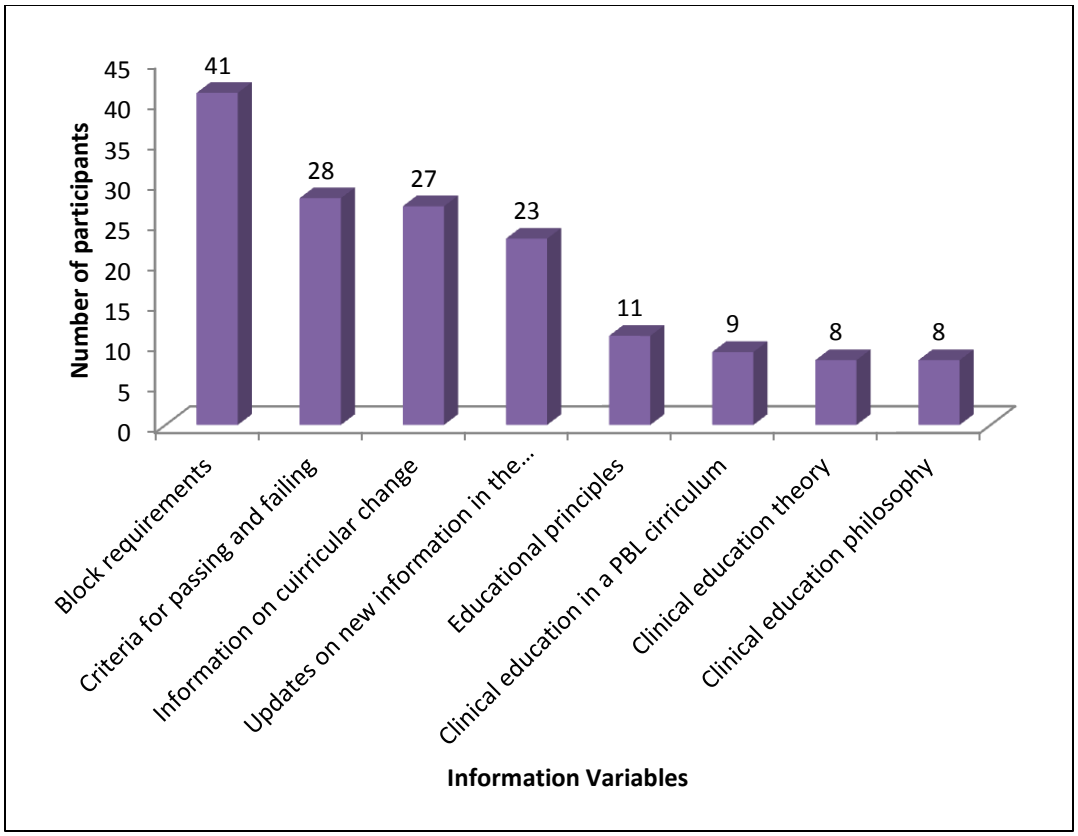


Figure 5.15a: Information from University Department

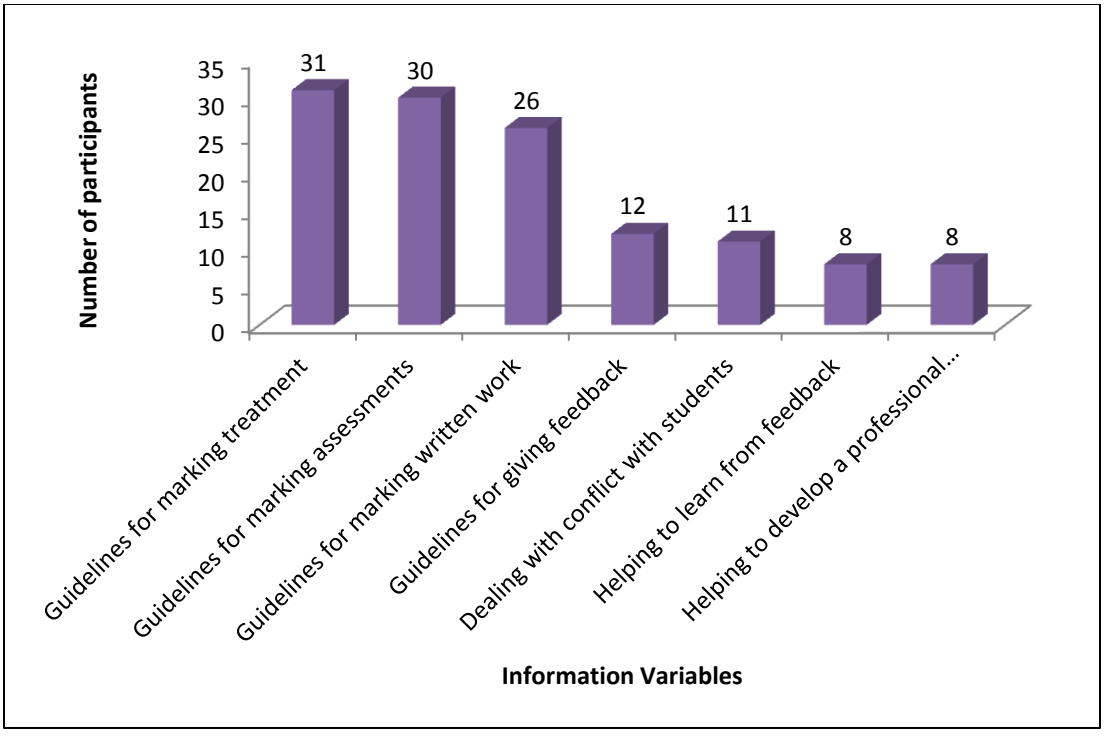


Figure 5.15b: Information from University Department

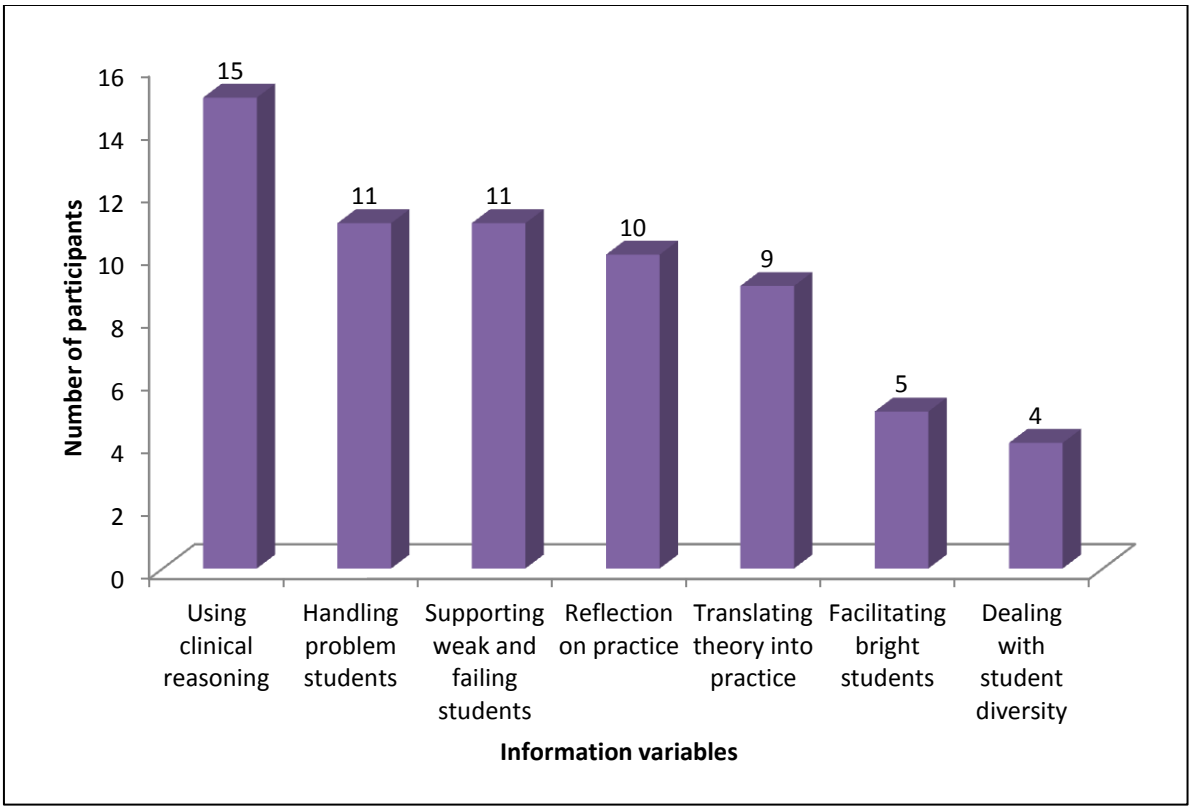


Figure 5.15c: Information from University Department

Figure 5.16 reports that 21(48.8%) of the respondents always attend the regular clinicians workshops run by the Wits OTD to inform them of clinical education issues. Six respondents (13.9%) reported that they had never attended one of these meetings.

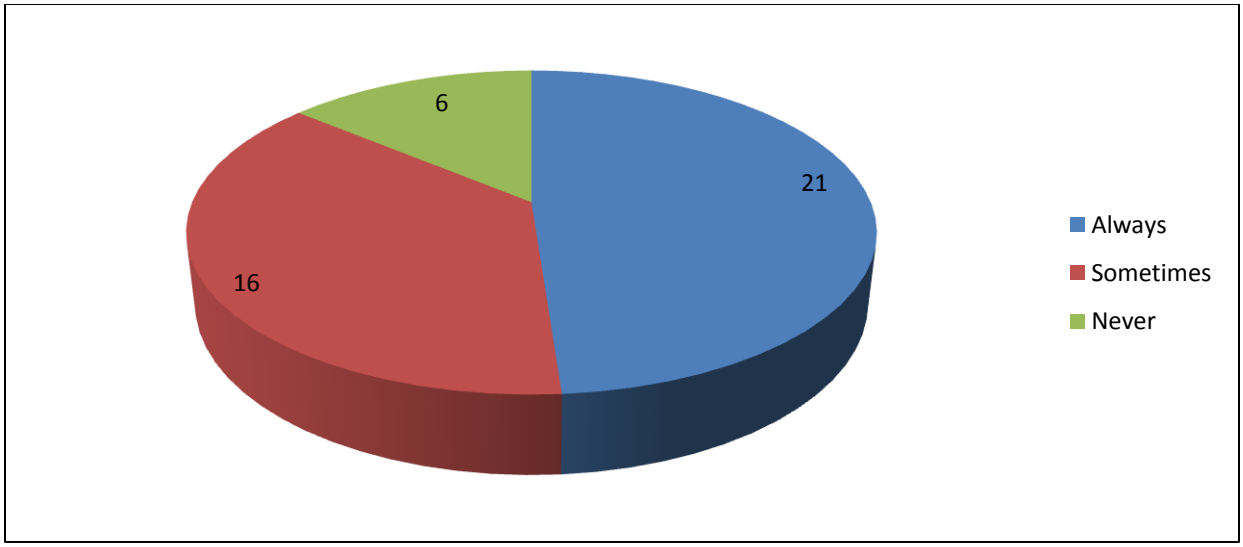


Figure 5.16: Respondents' Attendance of the Clinicians Meeting

Of those that attend (37), 21 [51.3%) found the meetings always useful, 16 [43%] found them useful sometimes and 6 [10.8%] respondents never found them to be useful. Respondents were asked if they felt they received sufficient help and support from the university educators on clinical education. Seven [16.7%] respondents reported that they did not receive as much help and support from the university staff as they needed, while the remainder (36 [83%]) indicated that they received as much help and support as they needed.

Figure 5.17 records the number of times the respondents had contacted the university educators during the year for help and support regarding clinical education. Two respondents had never contacted the university educators and 34 [70%] had contacted the university less than 5 times.

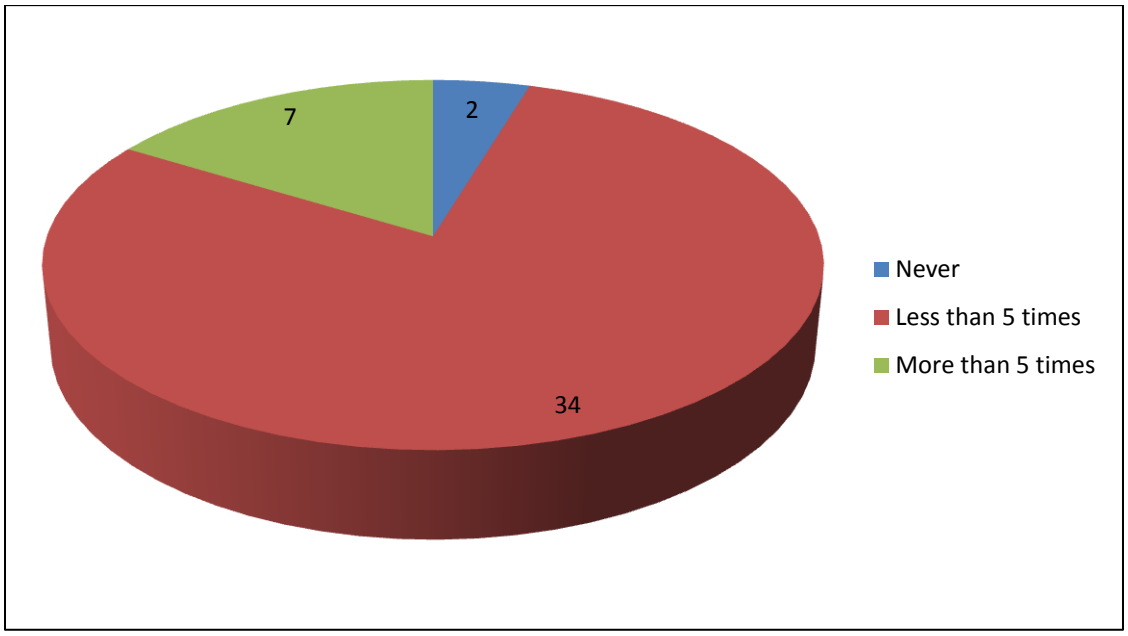


Figure 5.17: Number of Times Respondents Contacted the University Educators

Respondents were asked to comment on the support and training they received from their current or previous employer that may have assisted them in the clinical education of students.

Figure 5.18 reports that there was relatively little support for respondents involved in clinical education from their current or previous employers.

Twenty-two respondents [51.1%] reported that they shared information about aspects of clinical education in their current or previous work place. Twenty-one [48%] respondents reported some support from their line manager and other colleagues. Fewer than 10 respondents reported having mentoring and coaching to support them while involved in clinical education, and only 10 [23%] reported opportunities to debrief.

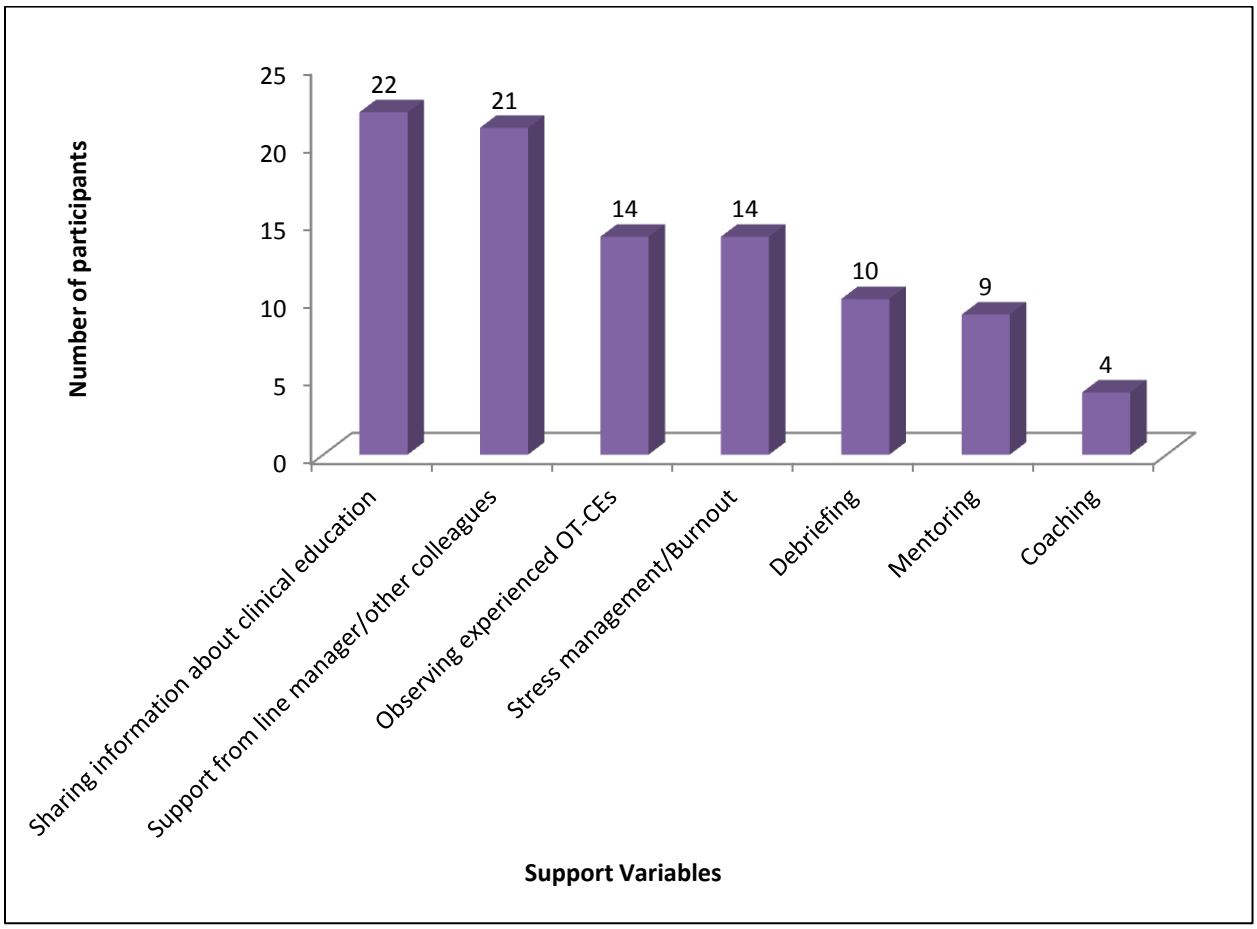


Figure 5.18: Support from Current and Previous Employers for Clinical Education

Figure 5.19 reports on the professional development opportunities available to the respondents at their place of work. Thirty-six [83.7%] of respondents reported that they had access to professional development opportunities and 33 [76.7%] had access to additional training opportunities. Fourteen [32%] respondents stated that they had access to mentoring and only nine [20.9%] had coaching opportunities.

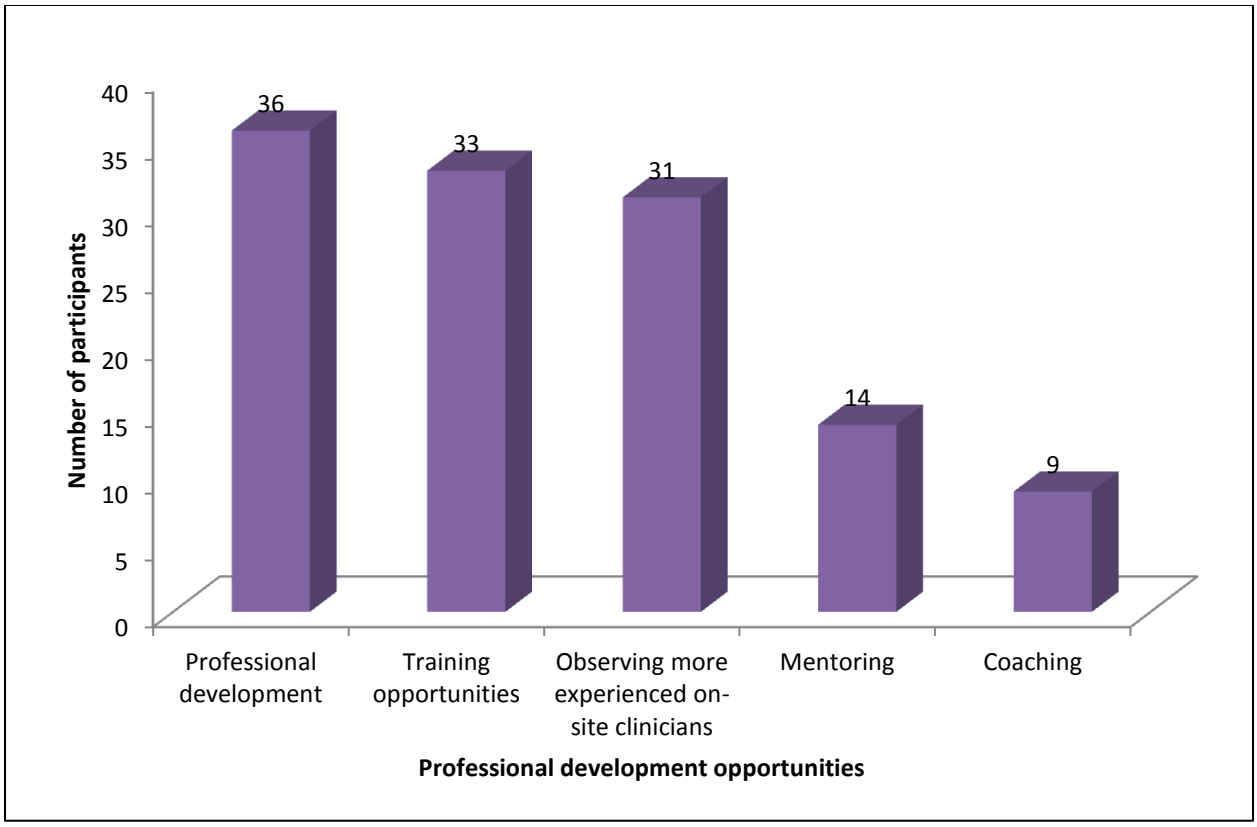


Figure 5.19: Professional Development Opportunities available at Work Place

Section 3: Benefits and challenges being an OT-CE

Figures 5.20 a) and b) report the challenges of clinical education as perceived by the respondents. There were 16 items and an 'other' option for any item that had been omitted. No respondent completed the 'other' option.

The 4 items marked 'yes' most frequently were: managing their own workload as well as the students (35 [81%]), finding time for observing students (33 [76.7%]), marking the cases/written work (28 [65%]) and finding time to give students feedback on their performance (26 [60.4%]).

The four items with the lowest 'yes' frequency were: supporting and accommodating students and clinical teaching (both 11 [25.5%]), giving students verbal feedback on performance (7 [16.3%]) and expectations of the university department and staff (5 [11.6%]).

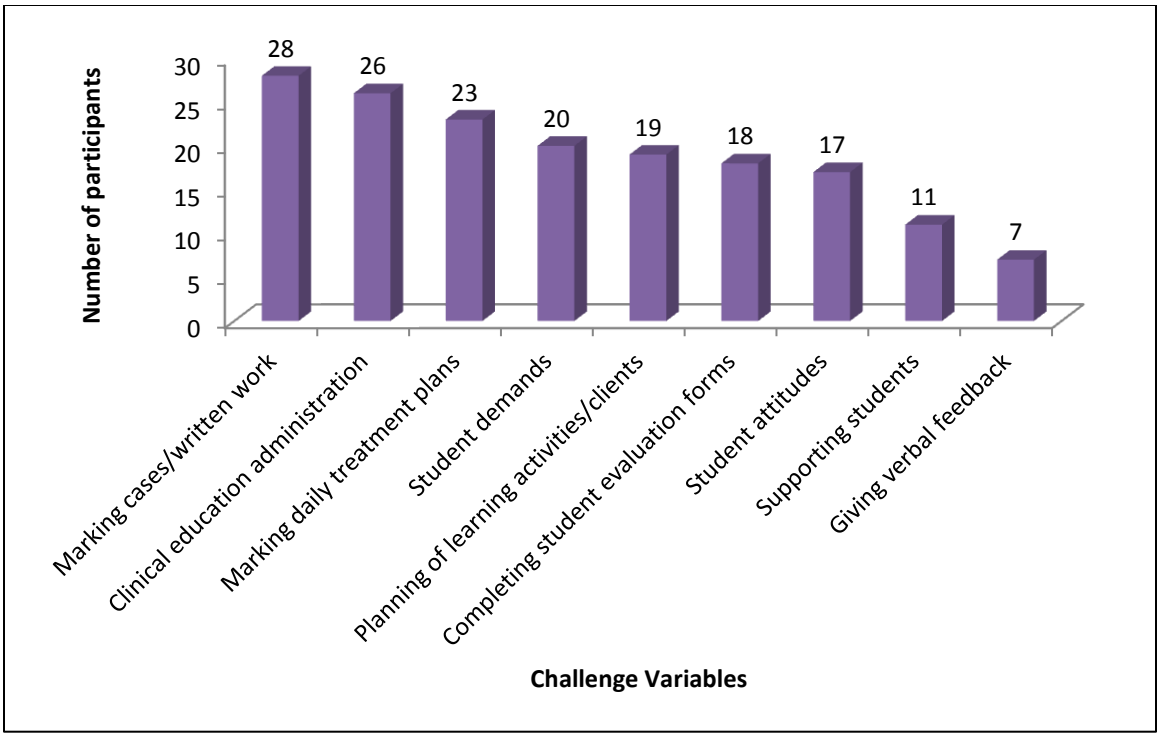


Figure 5.20a: Challenges of Clinical Education

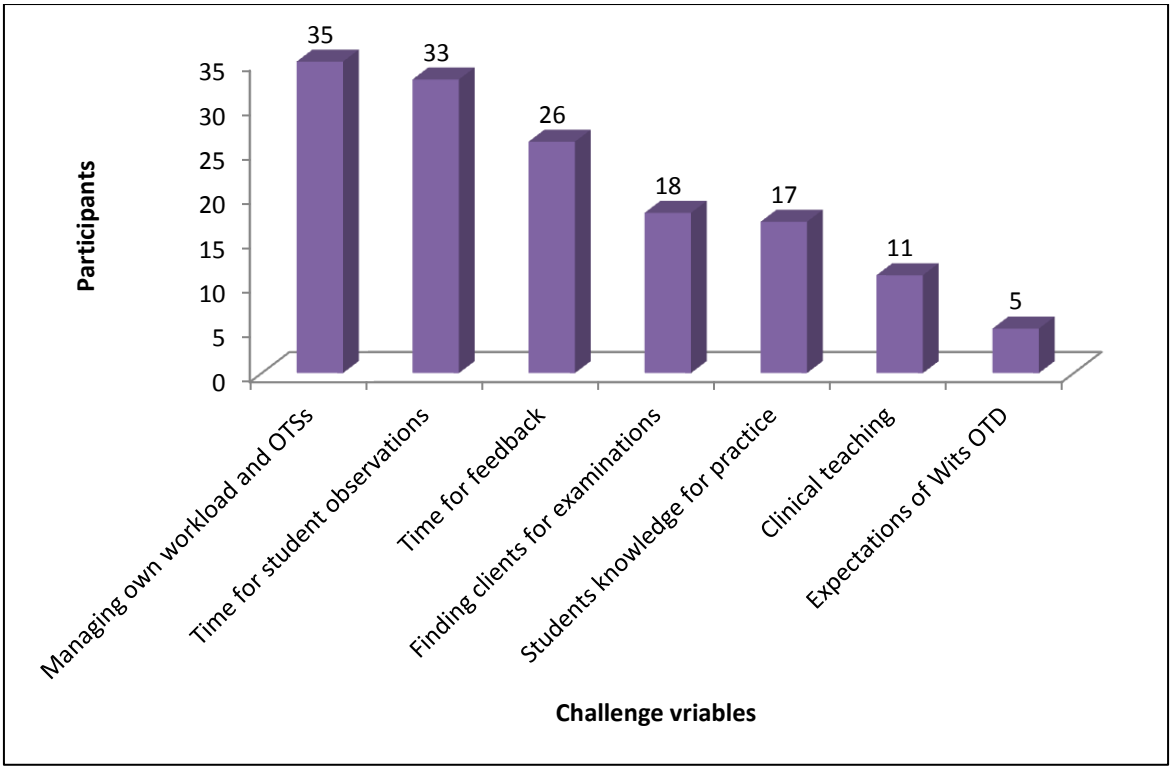


Figure 5.20b: Challenges of Clinical Education

Respondents were asked about the benefits of involvement with clinical education. There were six items that required a yes/no answer and one item where respondents could add a benefit that was not listed. No respondent used the 'other' item. Figure 5.21 reports the benefits as indicated by the respondents.

Forty respondents [93%] felt that involvement in clinical education helped them keep up to date and 35 [81.3%] felt it gave them access to new and novel ideas. Thirty-six [83.7%] respondents felt that involvement in clinical education was their way of developing the profession. Only eight [18.6%] respondents felt that being involved in clinical education would benefit them for promotion or other work opportunities.

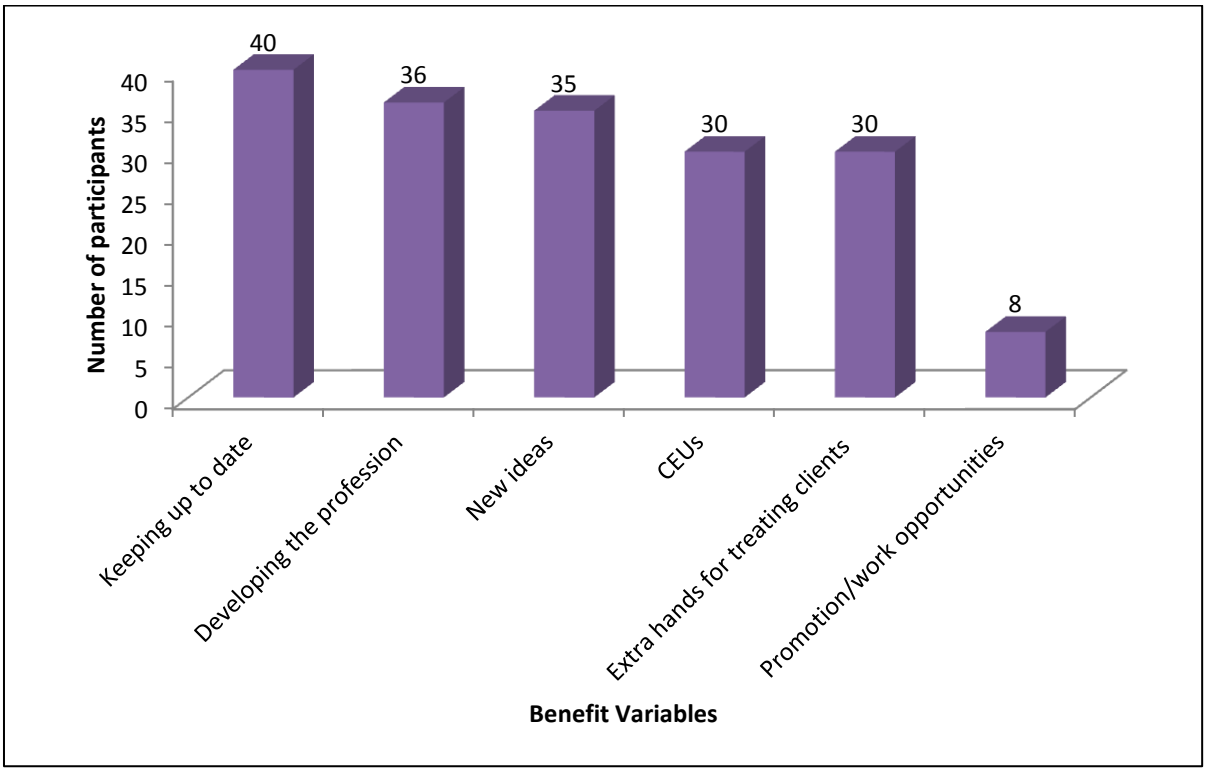


Figure 5.21: Benefits of Involvement in Clinical Education of the OT-CEs Respondents

Figure 5.22 reports the possible benefits to the clinical education site for their involvement in clinical education. There were three items that required a 'yes/no' comment and a single item for other comments. One respondent commented under the 'other' item: 'Students assist with prevention of institutionalization of new admissions and reaching target for discharge within months'. Thirty-one [72.1%] respondents indicated

that the students were extra hands when the department was short staffed and 29 [67.4%] indicated that students give clients individual attention that they would not otherwise get. Only 18 [41.8%] respondents indicated that students did the tasks that staff did not have the time for.

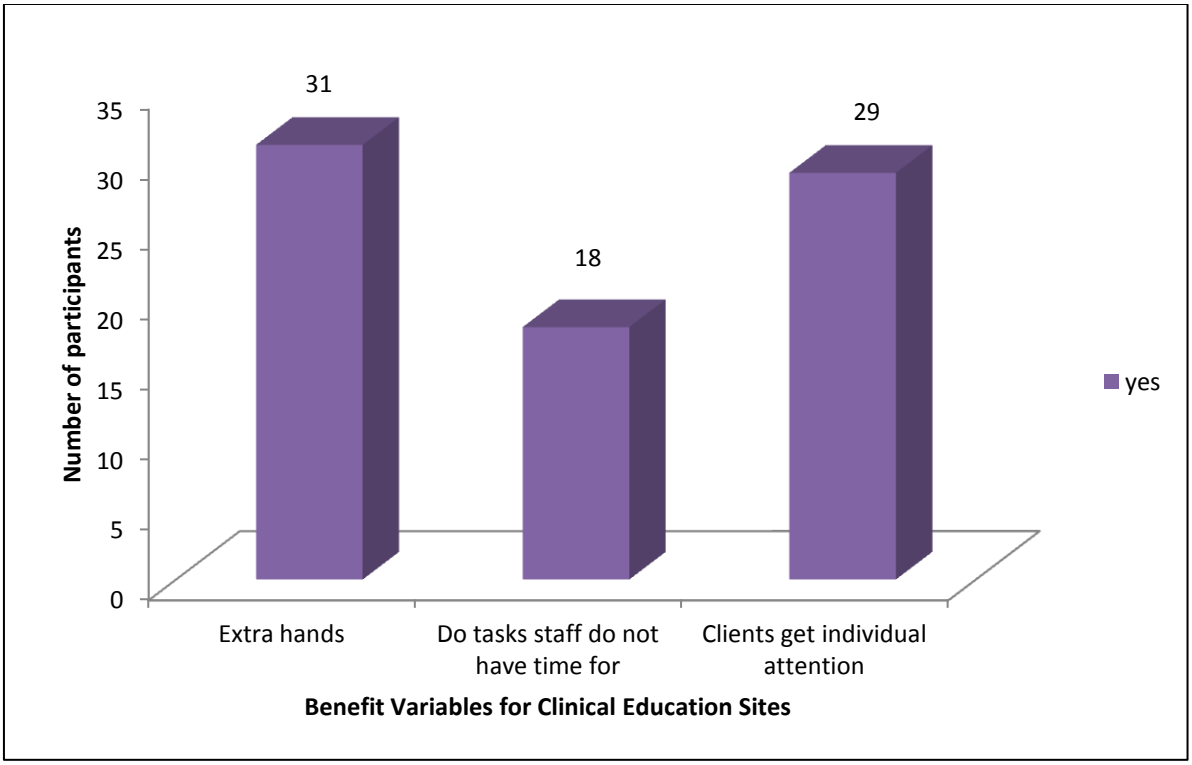


Figure 5.22: Benefits for Clinical Education Sites

The results of the correlation are recorded in Table 5.9. There were 11 variables where a significant difference was found between the respondents under and over the age of 30 years.

There were only eight variables where there was a significant difference between those respondents who completed their undergraduate education at other universities versus Wits. There were five variables where a significant difference was found in both age and university of primary qualification.

For nine of the 11 variables where a significant difference was found in terms of age the over 30 years of age group responded 'yes' more frequently than the under 30, except for 2 variables where the over 30 years of age group answered 'no' more frequently.

These two variables were: In your undergraduate years were you taught: procedural information on the clinical education of OTSs and Ethics related to the clinical education of OTSs. These have been marked on Table 5.9 in green.

In terms of university of primary qualification those respondents who completed their undergraduate education at Wits answered 'yes' more frequently than those respondents who completed their undergraduate degrees at other universities.

Table 5.9: Difference of Age and University Attended on Variables in Questionnaire

Variables with a Significant Difference	Age (n=43) Under vs Over 30 Years of Age	University of Primary Qualification (n=43) Other vs Wits University
	P value	P value
Theory and principles of adult education	0.0007***	
Procedural information on education of OTS	0.0177*	
Ethics related clinical education	0.0217*	0.0536*
Skill training in peer evaluation	0.0329*	
Skill training in peer supervision	0.0023**	0.0373*
Clinical education theory	0.0091**	
Usefulness of OT-CE meetings		
Observing other OT-CEs	0.0165*	0.0275*
Sharing of theoretical information about clinical education		0.0148*
Debriefing opportunities	0.0177*	0.0112*
Observing other clinical staff		0.0329*
Training opportunities		0.0148*
Planning learning activities and patients within clinical education blocks	0.0521	
Marking daily treatment plans	0.0483*	0.0337*
OTSs are an extra pair of hands when short staffed	0.0085**	

Significance p≤ 0.05 * p≤ 0.005** p≤ 0.0005***

Section 4: Improving clinical education for OT-CEs and OTSs

Only thirty of the forty-four respondents completed the single open-ended question at the end of the survey which represented 75% of the respondents. The open ended question

asked the respondents to give their opinion on what would contribute to making clinical education more beneficial to themselves as OT-CEs and to the students. Two respondents stated they were satisfied with the current level of support, and guidance. Thus, Table 3.7 reflects the opinion of only 28 respondents.

The responses have been divided into 4 categories: proposals relating to the OT-CEs, to students, relating to the curriculum and programme rules and finally some proposals relating to logistics.

Table 5.10 reports the respondents' opinions on factors which would make clinical education more beneficial to OT-CEs and OTSs.

Table 5.10: Respondents' Opinions on Factors to Improve Clinical Education

	Opinions	Frequency
Proposals related to the OT-CEs	Consistent and ongoing education on being a OT-CE, dealing with failing students, curricula developments and contents (Practice Framework), specific student procedure (case reports, daily plans).	24
	Rubrics that are streamlined for all evaluation activities to reduce the subjectivity.	6
	Support from university educators specially those who did their undergraduate training at other universities.	3
Proposals related to the students	Teach students coping skills and how to apply them.	2
	Teach students to use constructive feedback to aid their learning.	2
	Not prepared for blocks, this increases their stress levels.	1
	Develop a clinical education evaluation form for students to complete at the end of clinical education blocks.	1
Proposals related to curriculum and programme rules	Preparing students to work in the Public Health sector: Taking into account the most commonly treated conditions (CVAs, TBIs and hand injuries, amputations and burns); the importance of splinting and clients stay in hospital only 6-8 days.	1
	Less written work or more concise written work.	1
	More power over which students should fail blocks and not being pushed through.	1
	The PBL method is very beneficial to the students and teaches them skills to be able to access information independently and efficiently. Important theory and fundamental building blocks of assessment and treatment needs to be taught on a standard so that all students have the same information and cannot say they did not learn it in PBL.	1
	Making the urban experience more understandable before the students come for their first block.	1
Logistical proposals	University educators to spend more time with students during the clinical education blocks and not just come for the two case presentations: should do more marking and tutorials especially for students with problems.	3
	OT-CEs to be allocated more CEUs and have more CEU bearing activities.	2
	OT-CEs meetings should include new developments/theories in all fields of practice especially paediatrics.	2
	More opportunities for clinical education sessions especial for those not able to attend clinicians meetings due to work commitments: short emails with comments and education information on common problems, short tutorials.	2
	It would assist the supervisors greatly if the dates for the mid and end of block presentations could be confirmed in the first week of the block.	1
	Only having 2 students at a time would allow the OT-CE to allocate clinical education sessions and keep up to date with working of daily plans.	1
	Longer clinical education blocks (6 weeks) to give OTs and students time to see progress at rehabilitation stages.	1
	If we can have more/all weekdays to rural block (Monday to Friday).	1
	More CBR projects for students.	1
	Tutorials to be run by the university educators occurring simultaneously to clinical education blocks to deal with the issues that the students are having difficulties with.	1
Clinical education sites	More support and understanding from therapy and hospital management.	1

Key: CVA: Cerebral vascular accident; TBI: Traumatic brain injury; CBR: Community based rehabilitation.

5.4.7 **Discussion**

The purpose of this final survey was to explore the knowledge and skill that OT-CEs attained for this role from their undergraduate degrees as well as the support and knowledge provided by the Wits OTD and their line managers and OT colleagues for this role (See Table 3.1 Research question 3 Objective 3c).

The sample

The exact number of OT-CEs involved with final year OTSs within any academic year is difficult to calculate accurately as staff turn-over is high, particularly in the public health sector. The researcher had estimated that the number was approximately 48 and this was the number of questionnaires that were circulated. As the questionnaire was also circulated to clinical site heads on a compact disc, additional copies were available if the numbers had been incorrectly estimated. Forty three completed questionnaires were returned which was higher than expected (89.5%). Thus it was assumed that the sample was representative of the OT-CEs contributing to the clinical education of 4th year OTSs on the Wits teaching platform, although some non-response bias cannot be excluded even with a high return rate [184, 285].

The demography of the sample is typical of the OT-CEs working on the Wits teaching platform based on experience as no formal data were available: mostly young (67.4% under 30 years of age n=29); with less than five years of experience (n=25 [58.1%]); and who graduated from mostly 'local' universities (Wits n=23, Pretoria n=4 and Limpopo n=3 [69.8%]). Most OT-CEs were employed in the public health sector which is representative of where OTSs do most of their Clinical education. Respondents from all fields of practice are included in the sample. All but one respondent worked full time but 27.5% (n=12) worked in more than one service delivery site.

Most OT-CEs (n=32) reported being responsible for between one to ten OTSs in an academic year with one or two OTSs at a time. However a small number of OT-CEs (n=4) reported having been responsible for as many as 21-30 students with groups of four and five OTSs at a time. While this higher number may be typical of the second and third year groups of OTSs, it is unusual for more than two final year students to be in a single department at a time even on public health blocks. It is therefore possible that

although the questionnaire related to final year students the individual questions did not make this clear.

Knowledge and skills respondents indicated that they had learnt in their undergraduate course

The responses in this section of the questionnaire support the assertion by Costa and Rose and Best that an undergraduate professional education does not provide sufficient knowledge and skill to be an effective OT-CE [1, 60, 87]. Thirty three respondents (76.7%) reported that they had learnt about adult education theory and principles, and 26 respondents (60.5%) reported that they had learnt general supervision theory in their undergraduate course. While the number of respondents who indicated that they had learnt about these topics is relatively high (76.7 and 60.5% respectively), both topics are prescribed in the HPCSA Minimum Standards of Training for occupational therapy students and Standards of Practice, the former in the context of service delivery and the latter to manage OTA/OTT (mid-level) staff [29, 212]. Thus it would be expected that all respondents should have knowledge in both topics; however how respondents translate this information to clinical education of OTSs is uncertain.

While all undergraduate courses are required to teach ethics in relation to research and client care, the fact that 13 (30.2%) respondents perceived that they had been taught about supervision or clinical education ethics is interesting. The same is true of the remaining two variables: procedural information on clinical education (10 respondents [23.3%]) and seven respondents reported learning about clinical education of OTSs (16.2%). The former is more likely as all OTSs follow a procedural process in all education blocks, and especially young OT-CEs may perceive that they learnt this information from following the process as students. By the same token, respondents may perceive that because they were students and experienced clinical education that they know about it. It is unlikely that this is formally taught to OTSs.

Secomb reports that peer teaching and learning activities have been found to contribute to undergraduate health science students developing clinical knowledge, skills and attitudes in a variety of clinical settings [297]. Two universities reported a programme of peer supervision in their undergraduate courses, however only 18 (41.8%) respondents reported having learnt about peer supervision. Thirty three respondents (76.7%)

reported having learnt peer evaluation, while 23 (53.4%) had learnt about peer teaching. It is probable that peer teaching and evaluation are skills that are taught in undergraduate courses but are not directly linked to clinical education such as OTSs teaching each other activities to extend their activity repertoire, peer feedback on verbal presentations, marking of verbal presentations related to activity analysis, research, and group feedback at the end of a problem.

Information and support from the Wits occupational therapy department

The Wits OTD holds three meetings with the local OT-CEs of the final year students per year: at the beginning of the year prior to the start of the clinical education programme; in the middle of the year; and at the end of the year. Due to cost only two meetings are held with the rural OT-CEs usually at one of the rural hospitals: at the beginning of the year and in September or early October when the rural block programme is complete.

A relatively low number of the respondents (48.8%) reported they always attended these meeting and n=6 (13.9%) reported that they had never attended and the remainder attended sometimes (n=16 [37.2%]). It is the department's perception that the rural clinicians meetings are much better attended than those in Johannesburg but this is speculative rather than based in fact. We assume that the rural OT-CEs attend more regularly as they have less opportunity to collect CEUs and to engage in professional discussions around issues particularly pertinent to service delivery in rural and under-served contexts. All OT-CEs who attend these meetings are rewarded with level 1 CEUs. While the department would not expect 100% attendance, a more consistent and higher attendance would be desirable as these meetings are an important opportunity to discuss issues relating to the theoretical and clinical curriculum as well as the challenges experienced by on-site OT-CEs and the academic staff, so that we have a common vision, an agreed professional framework and professional terminology.

Somewhat concerning is that only half the respondents who had attended clinical educators meetings (51.3%) always found them useful, 16 (43%) sometimes found them useful and about 10% found them not to be useful at all. While respondents were not asked to justify these ratings it would be important in future to always clarify the purpose of these meetings and for the Wits OTD to monitor the usefulness of these meetings more closely, perhaps with an evaluation and feedback opportunity for OT-CEs after

each meeting. It may also be worth interrogating the attendance register kept for the HPCSA CEU auditing processes to see what information that might reveal.

Most Respondents reported receiving information on the Block requirements [95.3%]) and a much lower number felt that they had information about the criteria for passing and failing OTSs [65%]). The reason for the discrepancy between these two is uncertain as block outcomes, requirements and criteria for passing and failing are discussed with OT-CEs at the field specific meetings held as the last part the clinicians meetings. This information is also made easily available to all OT-CEs who are given access to the e-OT platform so they can see what has been taught, the sequence and depth of the information that has been given to the OTSs and the references that have been used to support the information. Records from the School's e-Learning team show that in 2013 and 2014 less than 5% of the OT-CEs registered ever access the e-Learning platform. Prior to this all OT-CEs were given a hard copy of the total curriculum. This was a costly document but again our impression was that OT-CEs did not use it. As many of our OT-CEs are young and avid users of virtual communication we erroneously believed the virtual information route was a better way to disseminate information.

One may speculate that the OT-CEs are more aware of the Block requirements as they set out what students need to do in each block to achieve the educational outcomes, but OT-CEs may only engage actively with the criteria for passing and failing when dealing with an at-risk or failing student, which is less common. However, it is worrying that OT-CEs give students passing grades if they are not clear about the criteria for this mark allocation.

From the results it is clear that pedagogy of clinical education is not made overt to the OT-CEs, or it is not sufficiently important that they remember the information given. Over the last four years presentations to the clinicians meetings have regularly included this information. However the frequency with which respondents answered yes to knowledge items relating to educational philosophy, principles and theory indicate that this information is known to only a very small number of respondents (between 25%and 18.6% respondents).

The Wits OTD has over the years developed rubrics to facilitate the consistent marking of all clinical mark-bearing activities. All OT-CEs are encouraged to use these as a guideline to give marks but also as a guideline for giving OTSs feedback. They are also routinely used in the mid- and end- of block clinical evaluations which are completed in partnership with the university staff. It is therefore unexpected that not all OT-CEs are aware of and have not used these guidelines. Only between 72% and 27.9% of respondents know about the guidelines for marking treatment demonstrations for marking assessment demonstrations, and for giving feedback. This raises a concern about the validity, reliability and consistency of the marks that OTSs are being allocated to the different teaching and learning activities at different clinical education sites. This gives support to the OTSs consistent complaint about the inconsistency of marks between OT-CEs and the various clinical education sites.

Not unexpected there were a very few OT-CEs that felt they had learnt about dealing with student conflict; handling problem students; supporting weak and failing students (25.5% [n=11]); and facilitating bright students (11.6% [n=5]) from the university OT. Not all OT-CEs would have had to deal with these situations, but those who had would have had assistance from the Wits OTD staff who would have given support and guidance and role-modelled strategies to help OT-CEs cope with these situations.

Again expected but somewhat alarming was the low numbers of respondents who felt they had gained information from the university OTD on the following variables: using clinical reasoning (34% [n=15]); reflection-on-practice (23.2% [n=10]); translating theory into practice (20.9% [n=9]); and helping students learn from feedback (18.6% [n=8]). All these variables are regularly role-modelled for OT-CEs by the Wits OTD staff in mid- and end of block evaluations. They are role-modelled mainly in the questioning around information the OTS has presented in her case study or what she has done in her treatment demonstration: ‘what was the clinical thinking that informed the OTS’s clinical decisions in her assessment and treatment planning’; ‘if this is the theoretical principle that you have selected how did you/could you implement it’; ‘evaluate the strengths and weakness of this session and with hindsight how can you change what you did to make it more effective/meaningful for the client’. These clinical education processes are obviously not overt to the OT-CEs, although they are not unfamiliar and are part of regular Clinical education. This seems to indicate that role-modelling alone without an

explanation of the educational process being used does not promote learning of OT-CE knowledge and skills. This finding is supported by other literature on clinical education [1, 87, 291].

The correlations between age and university of undergraduate course with respect to knowledge, skill and support suggest that both age and university of first professional degree are important variables and may support the criteria that clinical heads of departments indicated are used to determine who should be OT-CEs. This correlation raises two important questions:

How is it possible to fast track experience so that clinical education is less challenged by the age of OT-CEs? This was a question that would be answered through the provision of a clinical education programme. If current OT-CEs have to learn about clinical education over time from their experience, would a specifically designed OT-CE training programme facilitate the acquiring of knowledge and skill in a shorter time frame?

Should we be using the professional education structures to encourage other universities to assist OTSs particularly in the area of peer support where the difference between the two groups was most pronounced but also observing other, sharing, debriefing and training opportunities?

Benefits and changes of clinical education

The challenges and benefits of clinical education identified by the OT-CEs were consistent with those of the occupational therapy managers and will not be discussed again here.

Improving clinical education for OT-CEs and OTSs

The variable rated most consistently by the OT-CEs to improve the quality of clinical education was for OT-CEs to receive consistent and ongoing training in clinical education (24 of 28 participants: 85.7%). This is consistent with the view of the focus group participants which were discussed in 4.11.3.

5.5 MIXING OF THE DATA FROM PART 1

This research used a sequential exploratory mixed method design to explore the factors that impact on the quality of clinical education of OTSs from the perspective of all role players. Consistent with this type of design, all data collected were mixed at the end of the research to combine the strands that emerged from the two methodologies. This was done so as to integrate the findings from the two data sets following the interpretation aspect of the research [185]. The interface summary of data collected in Study 1 and Study 2 can be found in Table 5.9.

The collective data from all studies confirmed that clinical occupational therapists believe that providing clinical education for OTSs is a professional responsibility. While this is valued professionally, not all occupational therapists want to take on this responsibility and teach OTSs in the clinical context. This research has suggested that having an interest in or desire to teach is an important element in successful clinical education, and this may be a person-specific value.

While clinical education is appreciated as being essential to the professional development of all OTSs, this research suggests that the complex and multi-faceted nature of clinical education as an educational strategy and educational process is not widely appreciated by the OT-CEs. In addition, OT-CEs have access to very little training that would assist them in developing a comprehensive understanding of the concept. This raises concerns because if the clinical education role players do not have a collective understanding of clinical education as a process, and their specific contribution to the success of this process, then the quality of clinical education is compromised.

Table 5.11: Mixing Data of the Sequential Exploratory Mixed Methods in Part 1

QUALITATIVE STUDY (STUDY1)			QUANTITIVE STUDIES (Study 2)			
THEMES from focus Groups	**CODES**		**TELEPHONIC STUDY OF EDUCATION EXPERT**	**SURVEY OF OT MANAGERS**	**WHAT OT-CEs' LEARNT IN UG**	**SUPPORT AND TRAINING FOR OT-CEs**
Definition of CE		Complex collaborative multi-faceted professional teaching and learning concept that is difficult to define succinctly. Requires a partnership between OTSs				
Theme 1 Pockets of excellence	Professional ethical role -modelling				Learnt from personal experience	
		Excellent clinicians Desire and ability to teach			Universities reinforce: Ethical practice Professional responsibility to contribute to OTS education Positive and open to education of OTSs Value of listening to critique Fairness, .support and understanding	
	Relationships	University-OT-CE relationships OT-CE-OTS relationships		Good relationship with university is important: value clinician's meeting		Valued Good relationship with University CE provides support, information and guidance
	Well managed department					**Support for OT-CE in the work place**: Sharing information with colleagues Assistance from line manager Observing other more experienced OT-CEs Professional development opportunities Training opportunities Mentoring/coaching (much less available)
Theme 2 Challenges to quality	Poor role-models	Is this occupational therapy? Ethos of work Sinking into the quagmire	Poor role models Unethical practice Medical model versus occupation-based practice		Learnt from personal experience	

QUALITATIVE STUDY (STUDY1)			QUANTITIVE STUDIES (Study 2)			
THEMES from focus Groups	**CODES**		**TELEPHONIC STUDY OF EDUCATION EXPERT**	**SURVEY OF OT MANAGERS**	**WHAT OT-CEs' LEARNT IN UG**	**SUPPORT AND TRAINING FOR OT-CEs**
	Reluctant OT-CEs	Lack of desire and ability to teach Use of power and authority I suffered so will you too Disempowered students	Poor quality of clinical education			
			Poor attitude to clinical education Poor knowledge and skill in clinical education OT-CE Support: Inconsistent marking			
	The clinical curriculum	Practice versus learning What students should know	Procedural information about clinical education blocks Very limited clinical education information			Up-dates on the curriculum Changes to the curriculum **Procedural information** (good input) Block requirements Criteria for passing and failing Guidelines for marking assessments Guidelines for marking treatments Guidelines for feedback **Educational information** (poor input) Educational principles PBL Clinical education theory Helping OTS learn from feedback Developing a professional identity

QUALITATIVE STUDY (STUDY1)			QUANTITIVE STUDIES (Study 2)			
THEMES from focus Groups	**CODES**		**TELEPHONIC STUDY OF EDUCATION EXPERT**	**SURVEY OF OT MANAGERS**	**WHAT OT-CEs' LEARNT IN UG**	**SUPPORT AND TRAINING FOR OT-CEs**
	Students as learners	How students learn It's all about marks Poor coping Skills		Poor understanding of procedures Poor ability to work in MDT		
	Time	Time to learn Time to help OTSs learn	OT-CE high workload and no time for OTSs	OTSs take time		**Challenges:** Time for OT-CE on top of work load Finding time to mark (written) Finding time for clinical education administration Finding time to observe Finding time to give feedback
Theme 3 Grapevine	Student network is alive, well and strong	Reputations die hard Rumours add to stress and anxiety				
	University educators are not immune	Information source				
	OT-CE network is equally active.	Labelling of OTS Do we want them/ can we keep them out?	Labelling of OTSs			
Information that did not fall into the themes			**UG Training** Supervision of mid- level workers (management course)		**UG Training** Principles of adult learning Supervision of mid-level workers (management) Peer evaluation Peer teaching Peer supervision	Significant difference was noted on some variables with respect to age and undergraduate training.
	Attendance of clinician meetings:		**OT-CE Training and support** University versus On-site OT-CE education Procedural knowledge			Less than 50% of participants had attended, just over 50% always found them useful

QUALITATIVE STUDY (STUDY1)			QUANTITIVE STUDIES (Study 2)			
THEMES from focus Groups	**CODES**		**TELEPHONIC STUDY OF EDUCATION EXPERT**	**SURVEY OF OT MANAGERS**	**WHAT OT-CEs' LEARNT IN UG**	**SUPPORT AND TRAINING FOR OT-CEs**
				Who does clinical education : Competence in clinical education Where OT was trained Interest Positive attitude to OTSs		
				How many students: Staff availability: 1:1 or 1:2 Client availability resources		
			High staff turn over Slow reappointment Competition for sites Willing sites are far: Financial implications Reliance on the DOE grant Poor commitment to OT clinical education by site senior management Incentives	Logistical role Supportive role No role **Benefits**: OTs assistance in client care Keeping staff up to date Low value of incentives: CEUs /marketing		**Benefits**: Managing client load Keeping up to date New /novel ideas CEUs Promotion /other work opportunities (low benefit) Want ongoing clinical education training

Participants reported both benefits and challenges to being involved in clinical education of OTSs. The benefits enabled staff to keep up-to-date with professional developments and have access to new ideas, but that OTSs also assisted in providing clinical services, thus supplementing clinical workload demands. The provision of CEUs as an incentive for involvement in clinical education was valued more by the OT-CEs than the occupational therapy managers. Disappointingly, involvement in clinical education was not viewed as important for promotion or future job opportunities by participants. This may be consistent with the view of occupational therapy management/leadership, who from this research, appear to have a low level of involvement in, and appear to view clinical education as a task of more importance to the universities rather than a means of promoting clinical excellence within their departments. While the relationships between university and clinical education sites were valued and reported to be of importance, it was not viewed as a benefit.

A number of challenges were also reported but the perception of the seriousness of the challenges varied, probably in response to the manner in which the data were collected as well as the relative importance of clinical education to the sample cohort. While the challenges were linked to the factors which impacted on the quality of clinical education, there was acknowledgement that some clinical education sites provided excellent clinical education while at others the quality of clinical education was far from optimal.

The greatest challenge to clinical education was perceived to be **time**: a lack of time for effective clinical education by on-site OT-CEs on top of their already time pressured clinical responsibilities. All participants acknowledged that for clinical education to be effective, within a time-limited education, takes time. Time is needed to plan appropriately; time is required to develop an effective OT-CE-OT relationship which was considered in this study to be the cornerstone of successful clinical education. Successful clinical education requires time to demonstrate and teach clinical skills; time to observe OTS's professional competencies and developing knowledge and skills; time for formative evaluation and marking of written and Clinical education; time for effective feedback that supports and encourages learning, professional confidence and professional development; time for reflection and development of clinical reasoning relative to the clinical context and the specific occupational-needs of a client whose abilities are compromised by illness or disability or contextual constraints. Occupational

therapy by its nature is also time intensive as it is not protocol driven, and one approach or treatment regimen does not suit all clients. Individual occupation–based interventions that are context appropriate take time to develop. In addition it takes clients time to master the skills they need to overcome their activity and occupational limitations.

The development of clinical education knowledge and competencies also takes time and experience. Both OT-CEs and OTSs have to understand the time constraints and be meticulous in scheduling and managing time in order to meet educational deadlines. Missed deadlines, by either party, have consequences for OTSs' formative learning and fair and equitable summative evaluations.

Occupational therapy–CEs acknowledge that time constraints result in clinical education occurring mainly through the written work (case reports and daily treatment plans), formal case presentations and treatment demonstrations, rather than the day-to-day client assessment and treatment. Students are aware of this, and this is where they focus their learning activities. Students are resentful that their clinical evaluations are not reflective of the day–to-day client treatment which they believe is the purpose of their clinical education blocks.

The transitioning of classroom theory into practice and the development of clinical competencies need practise, which is also time intensive as it has to be accompanied by reflection and clinical reasoning. How much time is needed varies from one student to another, but time is not infinite and requirements are set to pace this process. Students' clinical learning is presumed to be cumulative over the third and fourth years in a sequential process that differs from student to student depending on the timetable which dictates their journey to meet the exit level outcomes. Each student expects within the context of their OT-CE relationship, realistically or not, to have their individual needs considered, which is also time consuming. They want to be seen as unique persons with individual learning and educational competencies, field preferences, life experiences and experiences of the profession that impact on learning in the clinical setting in which learning takes place. They do not want to be compared to others. They desire their OT-CE to form a person-specific OT-CE-OTS relationship with them. They want time with the OT-CE for assistance and guidance. They also do not want to feel guilty about asking for time and assistance or made to feel in the way.

Students have varying ability to manage their time, and one of the consequences of poor time management is high stress levels. Depending on their knowledge, professional and organisational skills and experience, OTSs take varying periods of time to complete assessments and use clinical reasoning to develop intervention programmes. For many OTSs the most time consuming professional learning activities relate to activity analysis and the selection of therapeutic activities that are client- and context-centred and will provide the client with the 'just right challenge' in the treatment sessions.

The second most frequently described challenge was **poor role-modelling**. This challenge acknowledged that OTSs learn very specifically from what they see and how they see the profession practised. This provides the norm for OTSs for their future practice, especially if they complete their community service in contexts where there is limited professional supervision. Studies by Allsop and Ryan, Higgs and McAllister had similar findings [298] [107, 206]. Two particular challenges were raised: unethical practices which seem to be common knowledge but appear to have no consequences, and poor professional practice that is out–of–date, is not supported by evidence and best practice, and is not occupation-based.

The profession has procedures to manage unethical professional behaviour both in the work place and through the HPCSA. Neither of these processes are being used in spite of many having knowledge of these problems which are discussed on the grapevine communication networks of all role players. Some of the problem has been ascribed to poor leadership. Whistle-blowing has consequences both personally and professionally for clinical staff, students and university educators. Trying to change the work ethos within a clinical department is difficult, and although many young and enthusiastic therapists plan to practice sound work ethics, they get pressed by the work-place socialising system and 'sink into the quagmire' of poor practice. Students are especially frustrated when this affects client care. They want to play an advocacy role, but are cognisant this might well influence their learning and will certainly impact negatively on their marks. So they choose to remain silent.

Student participants also reported being frustrated by seeing clinical practice (role-modelling) that was contrary to the principles of occupation-based practice which they have been taught. This directly relates to the state of development of the profession and

clinical sites not having made the paradigm shift by continuing to practice occupational therapy using the medical model to inform practice. While participants describe one of the main benefits of involvement in clinical education is keeping up-to-date, this seems to not influence their practise which was reported to be consistent with how they were taught in their undergraduate course. This creates a tension between the university academic staff and the on-site OT-CE concerning the curriculum, what is taught in the classroom, and clinical competencies students should have on graduation. Clinical context pressures, lack of resources, high client turnover and early patient discharge have been blamed for this. While others perceive it to be more of an attitudinal difficulty as occupation–based practice does not necessarily require resources, and services are not sufficiently community focused.

Another challenge was perceived to be a **lack of clinical experience** of OT-CEs.
In this study most of the OT-CE participants had less than 5 years of clinical experience and were mostly under 30 years of age. The least experienced participants tended to be responsible for more OTSs than those with more experience. Clinical experience was reported in this study to be important for the success of clinical education, but it is not the only critical ingredient of success. However, although experience required time, the length of time of practice since graduation was no guarantee of effective professional practice or effective clinical education. As reported above, it takes time and experience of clinical education to develop clinical education knowledge and skill. However, in the clinical education sites occupational therapy managers reported staff turn-over to be high, which was also a factor influencing the quality of clinical education. Occupational therapy managers reported that the four most common criteria for selecting which clinical staff became OT-CEs were: experience in clinical education; where staff had completed their undergraduate OT education; expressed interest in clinical education; and a positive attitude towards students. Occupational therapy managers reported that their favoured model of clinical education was 1:1 or at the outside 1:2, and OTS numbers at a particular site are limited by this as well as availability of suitable clients.

The **lack of fundamental knowledge and skill in teaching and learning** was also reported to be a major challenge. Occupational therapy undergraduate training at Wits as well as the other seven universities, although in keeping with the national and international minimum standards for training, does not provide an adequate educational

platform for clinical education, either in terms of knowledge or the critical skills to enable OT-CEs to enact this role effectively, nor is it is the purpose. South African OT-CEs develop their clinical education knowledge and skills predominantly on their own experiences of clinical education and OT-CEs as students, but also from their experiences of peer-learning, -evaluation and -supervision in their student role. In the workplace they learn on-the-job from observing more experienced OT-CEs in their work context, and from advice and support from their line managers. So over time they learn what to do from experience, rather than why and how clinical education should be facilitated based on knowledge, best practice and evidence. Where OT-CEs completed their undergraduate training also has some influence.

Most universities provide their on-site OT-CEs with some training opportunities. These vary in length and content. University OTDs acknowledge that the nature of the information provided is predominantly procedural and does not provide the on-site OT-CEs with the educational knowledge and skills to support their OT-CE role. However some procedural information is considered to be important as it informs OT-CEs about curriculum content, curricular changes and the alignment of the clinical education blocks to the classroom teaching as well as to the exit level outcomes. These sessions are generally short due to time constraints, thus the obvious but perhaps educationally-limiting solution is to impart what needs to be done rather than educational principles that support it.

On the Wits clinical teaching platform less than 50% of OT-CE participants reported attending the educational sessions (clinicians' meetings) provided to assist OT-CEs to enact the clinical educator role. Slightly more than 50% of study participants always found them useful. Thus it would seem that there is not a good alignment between what OT-CEs want and believe they need and what is being provided. While most participants in this study requested additional educational input to support their role as OT-CEs, what motivates them to attend or not attend clinicians meetings was not a question that was asked or answered in this research. However, in the focus groups it was perceived that the OT-CEs who attend these sessions are the 'converted' and those who do not attend are those who really need the information.

Some clinical sites view one of the benefits of involvement in clinical education as students being extra hands to provide services and extra time to their clients. This suggests that their focus for OTSs is more service orientated rather than education orientated. Since they are knowledgeable about service delivery in their context, perhaps their need to attend more educationally oriented sessions is less. University educators acknowledge that finding a suitable time for clinicians meetings is challenging, and not all OT-CEs can attend as the occupational therapy service has to be delivered. However, those who do attend should take the responsibility of sharing the information with others and ensure that all OT-CEs use the documentation that the university provides. We are aware that they rarely access the clinical curricular information on the e-OT electronic teaching platform although they all have access, and printed documents are filed but seldom referred to.

This lack of knowledge and skill in clinical education may be one of the sources **of reluctance to be involved in clinical education** as described in this study. Participants in this study perceived that some desire or interest in clinical education was needed over and above clinical education knowledge and skill. However lack of knowledge and skill in clinical education created stress and pressure for OT-CEs as they did not know how to manage the clinical education process, how to facilitate clinical learning and what to do if the process goes wrong. This leads to the inappropriate use of the power in the OT-CE-OTS relationship; not providing OTSs with the clinical education opportunities or the just-right-challenge for their level of experience consistent with clinical education block outcomes; not using formative opportunities and feedback to promote learning as well as fair, consistent and equitable evaluation at the end of the block. These difficulties result in many demands on the university staff to provide support, practical input and mentoring for OT-CEs, as well as additional support, tutorials and clinical input for OTSs.

Students as learners were also described as a challenge in terms of their demands and expectations as well as their attitude. Students report their clinical learning process and marks as their main motive and their on-site clinical behaviour is governed by what they perceive will be to their best advantage. Students were perceived to be demanding and to have high expectations. They expected OT-CEs to be excellent clinicians and clinical teachers who are able to tell them everything they need to know, and to some extent

guarantee success. They expressed the need for OT-CEs to be always available to them to give guidance and answer questions. They reported the desire to be treated as individuals and not be compared to other students. They requested face-to-face timely feedback in the manner which suits them best, spells out their clinical strengths and weakness and at the same time supports their self-confidence and developing professional identity. They also reported wanting to be able to negotiate the block requirements to their best advantage. Clinical and university staff reported OTSs to be dependent, wanting staff to think and solve clinical problems for them and tell them what to do rather than clinically reason solutions themselves. University staff considered this to be related to their student-centred attitude which may not be facilitating independence.

Students were also reported to demonstrate **limited adjustment and coping skills**. Clinical educators report that some OTSs settle quickly into a block and work effectively and efficiently towards achieving the clinical education block outcomes. However, others take long to settle in and cannot manage their time, which puts pressure on the meeting of deadlines and clinical education block requirements. These OTSs require additional support, time and effort and are emotionally draining. This is especially true of at-risk and failing OTSs.

The **clinical curriculum** is also challenging. South African undergraduate curricula all aim to graduate generalists with fundamental skills in all fields of practice and all levels of health care, thus the knowledge and skill base that needs to be mastered is broad. However, the depth of knowledge and skill is narrow in each field. Furthermore, the clinical curriculum is dynamic and constantly under review so it is never absolutely fixed and clinical requirements are constantly being adapted to both the educational and clinical demands. These need to be constantly reported to OT-CEs who may have different views about what needs to be taught and how it should be taught.

Wits OTD uses a **PBL approach and strategy** to deliver the occupational therapy curriculum. Not all OT-CEs are knowledgeable about the principles of PBL or the relative benefits of using it as an educational strategy in the clinical. For some OT-CEs the PBL was a challenge.

5.6 CONCLUSION

These findings confirm the concerns that OTSs reported to the inspectors who evaluated the Wits occupational therapy programme on behalf of the HPCSA and which initiated this research (See 2.3.).

While all of the challenges are of concern to the Wits OTD, a number are not within our power or jurisdiction to change.

All aspects of this research thus far support the notion that OT-CEs should receive some training to better prepare them for this task, as what they currently are being offered is not sufficient. Education of OTSs and OT-CEs is within our area of responsibility and the Wits OTD can make a considerable contribution to improving the quality of clinical education on our teaching platform through providing appropriate education for OT-CEs to assist them in this additional important professional role.

Thus the decision to pursue Part 2 of the research (Study 5-8) was taken.

CHAPTER SIX

6. DESCRIBING THE OT-CE SKILL-SET AND DETERMINING THE SKILL-SET GAP

The previous chapters described the current state of clinical education on the Wits clinical teaching platform. The results of Part 1 of this research suggested that although there are clinical sites where there is excellent clinical education, there are others where there are considerable challenges. Both the participants in the qualitative study and the respondents in the quantitative surveys proposed that one of the solutions to improve the quality of clinical education was to provide OT-CEs with clinical education training. This, they perceived, would enable them to execute the tasks associated with clinical education more effectively in the context of professional practice and therefore improve the quality. However, it is acknowledged that additional training with respect to clinical education would have little or no effect on workload or work culture issues if they play a role in an occupational therapists reluctance to become involved with clinical education. Based on this recommendation Part 2 of the study was undertaken. The research question that guided this aspect of the study was:

Would clinical occupational therapists responsible for the clinical education of OTSs in a variety of clinical education sites on the Wits teaching platform benefit if they were specifically trained as OT-CEs?

Three discreet studies were undertaken in Part 2 and these are recorded in Figure 3.3 This chapter will report on the first two studies (Studies 5 and 6). The first is the development of a clinical education skill-set needed by OT-CEs to assist an OTS to transition classroom knowledge into competent professional practice. For clarity this has been labelled Study 5. Figure 6.1 outlines the aim, research method, questions and objectives for Study 5.

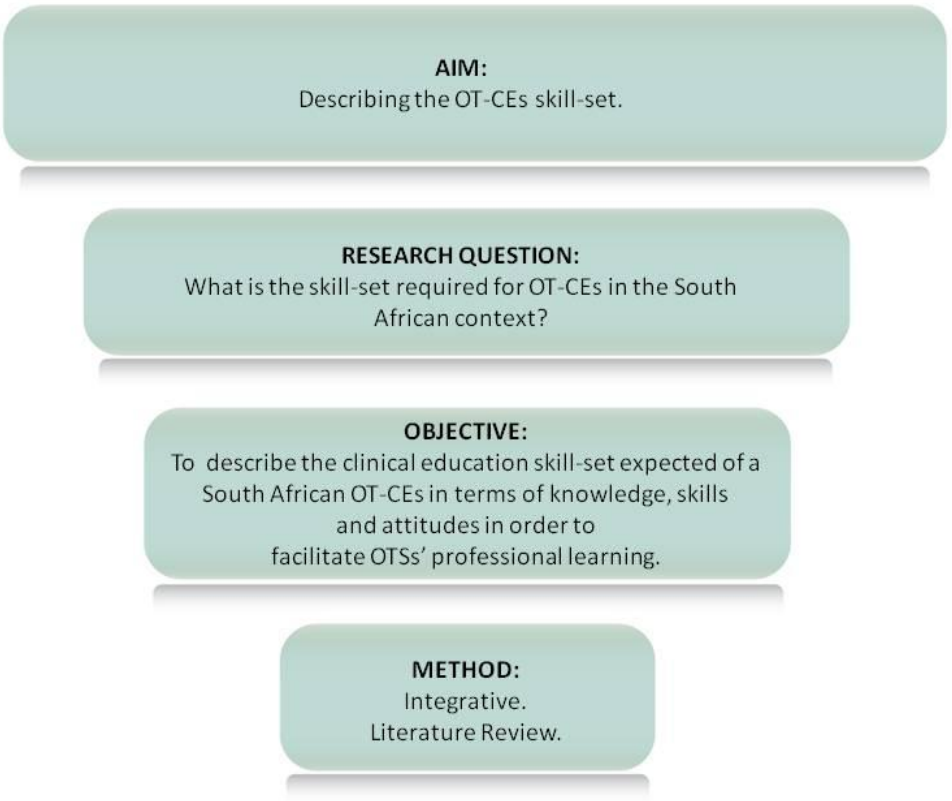


Figure 6.1: Components of Study 5

6.1 DESCRIBING THE OT-CE SKILL-SET

In spite of all new graduates being required to take the Hippocratic oath and promising to pass on their knowledge to future professionals, international literature suggests that undergraduate training of any health professional does not prepare them for the dual role of OT-CE and clinician and there is insufficient education [299] for the task of clinical education [1, 83, 286, 300, 301]. However, the exact skill-set needed to adequately perform the roles and functions of a clinical educator is unknown, thus determining the OT-CE skill-set was the objective of Study 5.

6.1.1 **Research Method**

The research method used to determine the OT-CE skill-set was an integrative literature review [302]. Literature focusing on the core components of the OT-CE's roles and functions as well as on the issues that had been raised as challenges and deficits in earlier findings of this research were reviewed. Primary and secondary sources of literature were obtained from books, international and national professional journals. Professional documents describing the scope of practice of an occupational therapist, as well literature covering educational outcomes were also reviewed [303]. The literature was analysed and used to develop a skill-set of core competencies of knowledge, skills and abilities for an OT-CE [304].

The term 'skill-set' has its roots in competency-based education [305]. A skill-set is an organised collection of work-focused abilities that define what an individual needs to know and be able to do within a specific job or aspect of job in situations that vary in nature and complexity [306]. The abilities within a skill-set need to be described as competencies which are specific and measurable and need to be mapped into groups/bundles and sequential patterns [305]. In this chapter the term skill-set refers to the collection of competencies that are needed by an OT-CE to perform the task of educating OTSs during their clinical placements which aim to develop professional clinical competencies. Although the occupational therapy specific knowledge and skills may vary from one clinical education setting to another, depending on the type of occupational therapy service delivered and the clients receiving that service, there are generic competencies demanded in all clinical education settings in relation to the clinical education of OTSs [307]. This was therefore the focus of the OT-CE skill-set to be developed.

Competency-based education literature suggests that the development of a skill-set is a process rather than a product [306]. Furthermore, the development of these skill-set competencies is a dynamic process in the progression from the novice to the expert OT-CE [108, 304, 308].

The literature pertaining to clinical education does not describe the specific competencies but rather reports on desired behaviours or requirements. Thus, the competencies have been deduced by critically analysing the behavioural descriptors and

translating them into competencies that make up the OT-CE skill-set. The collection of competencies required of an OT-CE was developed using a format adapted from Jones, Voorhess and Paulson [309] as illustrated in Figure 6.2.

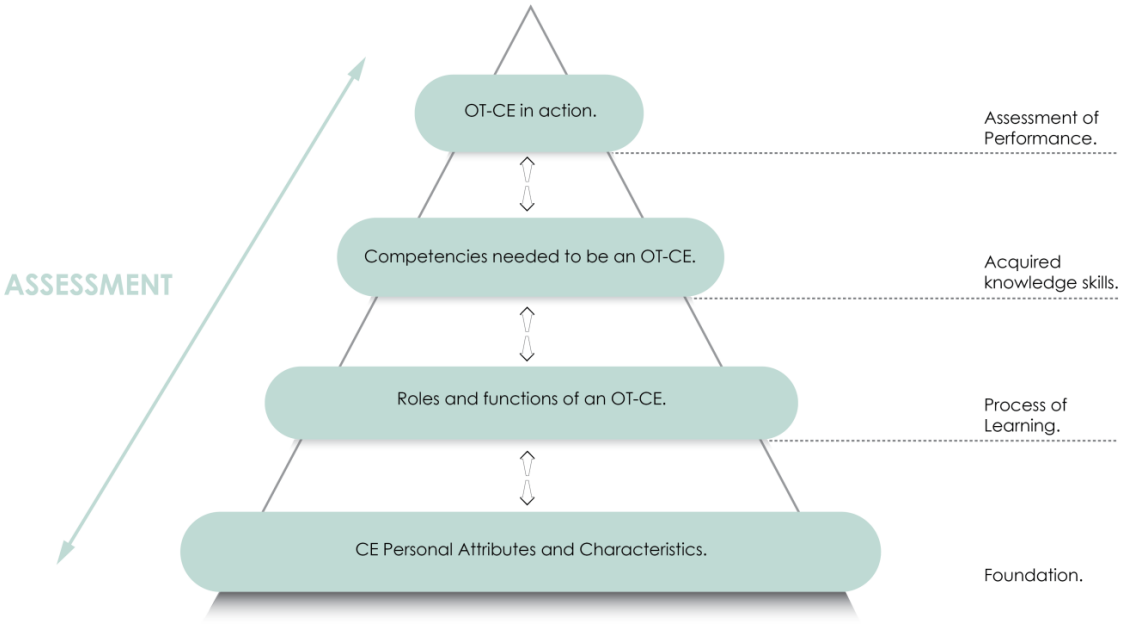


Figure 6.2: Format for Developing an OT-CE Skill-Set

In the context of this research the OT-CE skill-set will be presented in units of competence which describe the generic knowledge, skills and attitudes needed to carry out the significant roles and functions of an OT-CE. These units of competence have been subdivided into elements which are considered to be the 'building blocks' [310 p.9] of each unit that are observable in the clinical education context and subject to assessment by means of prescribed performance criteria [310, 311] (See Figure 6.2).

6.1.2 Skill-set for South African Occupational Therapy Clinical Educators

Using Figure 6.2 as a framework the OT-CE skill-set has been developed from the bottom up, starting with the foundation level which represents the OT-CE's personal attributes and characteristics, moving to describing the different roles and functions required to be an OT-CE. The literature reviewed also addressed the knowledge, skills and abilities that need to be acquired to be an OT-CE. The assessment of performance will not be covered in this chapter but will be discussed in Chapter Seven where the outcomes of the education programme that will be described.

6.1.2.1 **Personal attributes and characteristics**

As can be seen in Figure 6.2, personal attributes and characteristics are considered the foundation of the skill-set. As suggested by the results of the focus groups described in Chapter Four and the literature, there is an assumption that OT-CEs need a specific set of personal attributes and characteristics to be effective in this role. However, being an OT-CE requires the marrying of personal attributes and characteristics that are reflective of this dual role: being a practicing professional and an OT-CE. Since this dual role is enacted in the South African context, the personal attributes and characteristics ascribed to through the Batho Pele principles should be evident in professional behaviour [312].

The personal attributes and characteristics ascribed to being an occupational therapist are rooted in the professional philosophy. The Australian Minimum Competency Standards for New Graduate Occupational Therapists enumerate the personal attributes and characteristics as: 'valuing and enacting client centeredness; being culturally sensitive and culturally competent; being professional and ethical; being occupation-based; using best evidence to support practice; being a lifelong learner; demonstrating appropriate worker-based competencies; and demonstrating belief in and promoting the advancement of the profession' [310]. In most occupational therapy curricula, these attributes and characteristics are loosely termed 'professional behaviours', and are often in the hidden curriculum rather than being overtly stated [313].

To complement the professional role, the literature suggests that the positive attributes and characteristics required to be an effective OT-CE are rooted in a personal-professional value system [227]. Health care professionals are socialized into believing that it is their professional responsibility to share their knowledge and expertise with students and recent graduates, and so contribute to the future development of the professions [125, 243, 314]. In South Africa every registered occupational therapy practitioner's responsibility for the clinical education is recorded in Standard I of the HPCSA's Standards of Practice: Clinical Governance, although this seems not to be widely known [212]. Although this is valued in most countries and is a component of the Hippocratic oath, only in some is this stated competency made overt for a new graduate [286, 310].

The literature reports that involvement of clinicians in clinical education may not always be altruistic, and professionals have been found to actively involve themselves in clinical education for other reasons, for example: they distrust the educational system and want to ensure that students have the appropriate knowledge, skills and attitudes which in their opinion are necessary for practice but are contrary to what students are being taught [158]. This opinion was evident in the focus groups and was stated overtly. Research by Currnes and Bithell found that there is a growing ambivalence in professionals as to whether clinical education is a core responsibility, resulting in an increasing number of therapists being reluctant to be involved in clinical education unless this is written into their key performance areas (KPAs) and they are remunerated for this role [315]. In Gauteng, clinical education is a stated KPA of all public service occupational therapists, but they receive no recognition or additional remuneration for this activity. Reluctance to be involved in clinical education has been related to service delivery pressures [111, 118, 225], and associated with not yet achieving a level of professional readiness before being involved in the clinical education of students [1].

The AOTA has listed a set of role competencies that occupational therapists need to attain before undertaking any clinical education activities and has recommended that prospective OT-CEs pass an electronic self-assessment test before undertaking this role [60]. This suggests that these OT-CE competencies may be learnt through experience or through training, but not all occupational therapists achieve these during the course of their professional work or other CPD activities [1].

Since there is little formal training for an OT-CE in South Africa, to be an OT-CE is a journey based on experience and trial and error learning. The transitioning from a novice to an expert OT-CE is reported to be less dependent on time and more dependent on expanding one's clinical knowledge, clinical reasoning and professional expertise, and also subscribing to strong moral values, ethics and commitment to the cause [8, 316]. Whatever motivates the contribution to the clinical education of students will influence the attributes and characteristics OT-CEs bring to the clinical education process.

The literature suggests that the most important success factor in clinical education is the quality of the relationship between the OT-CE and the OTS [1, 92, 317-319]. The following

extensive list of personal characteristics, have all been reported to be valued by health professional students in their clinical educators: directness; being non-threatening, flexible, honest and kind; showing respect for students' feelings and ideas; compassion; integrity; dependability; nurturing; being available, approachable and easy to talk to; listening to the students and being prepared to give to students the help and support they need; commitment to teaching; being aware of the students' fears and concerns; adaptability to students' differing learning needs; encouraging active student involvement; actively engaging with students about clinical issues; joint problem solving; being able to identify an individual student's strengths; being organized; accepting of the student's level of competence; facilitating students' self-evaluation and reflection; being self-aware and self-confident; and having a sense of humour [1, 86, 92, 97, 307, 320].

Conversely, research has also suggested that the following interpersonal characteristics and attributes are not helpful in the clinical education process: inflexibility; lack of enthusiasm; intolerance; disorganization; lack of sensitivity to others as well as a demeaning and over-critical attitude; being cynical and humiliating; focusing on the negative rather than the positive; lack of empathy and unsupportive attitude [1, 92, 230].

Role-modelling, as reported in previous chapters, has been identified in the literature as being crucial as it projects important personal attributes and characteristics within the clinical education context. In this regard, role-modelling is more than just the demonstration of professional competence. It is the practical demonstration of the way professionals interact with and treat their clients and colleagues in the course of their daily work, and the impact of this on the client and service delivery in general. Positive role-models are reported to view clients with compassion and empathy and talk to them with respect, explaining procedures and treatment options clearly, understandably and without coercion. They are committed to service delivery, and collaborate with colleagues and caregivers to do what is best for the client [88, 92, 230, 314, 320, 321]. Good role-models are also self-motivated, dedicated, open to new ideas and are self-reflective, both personally and professionally [113, 124].

Conversely, poor role-models are those who are described as being on a 'power and ego trip'; they are often cold towards and distant from their clients; treat colleagues with disrespect and give little acknowledgement of the contribution of others unless there is

some personal advantage to be attained from this; they are more concerned with their status and furthering their professional career than delivering a quality service [92, 230, 307, 314, 321].

In South Africa the Batho Pele principles and the Clients' Rights Charter form the basis of the personal characteristics and attributes expected for delivery of an effective health service: consultation on client needs; delivery of high quality, accessible, cost effective service; treating of all clients and colleagues with courtesy and respect; informing clients appropriately about the service they require and are entitled to, so clients can make informed decisions about their own health; openness and transparency; and redress if service delivery is less than desirable [312].

The analysis of the above literature proposes that occupational therapists require core values and beliefs concerning three complementary issues: the profession, their work ethic and the people they engage with within the work context. These beliefs are reflected in their personal attributes and characteristics that underpin their practise as a clinician, worker and OT-CE. These personal attributes are demonstrated in daily execution of their roles and functions, and influence whether they are perceived to be positive or negative role-models (see Figure 6.3).

Role-modelling is believed to be central to the development of a professional identity. It is described as the internalising of values and beliefs, and a view of clients' problems and the treatment that they require in a manner that is characteristic of that particular profession [322]. Identity formation is considered essential for OTSs, but the learning of this is not overt, is considered part of the hidden curriculum. It is linked to the learning of professional clinical competencies from an OT-CE who they believe in, and whose practise is consistent with the values and guidelines of the profession [323, 324]. Role-modelling is considered to have a greater impact on students than any other teaching technique or methodology [322].

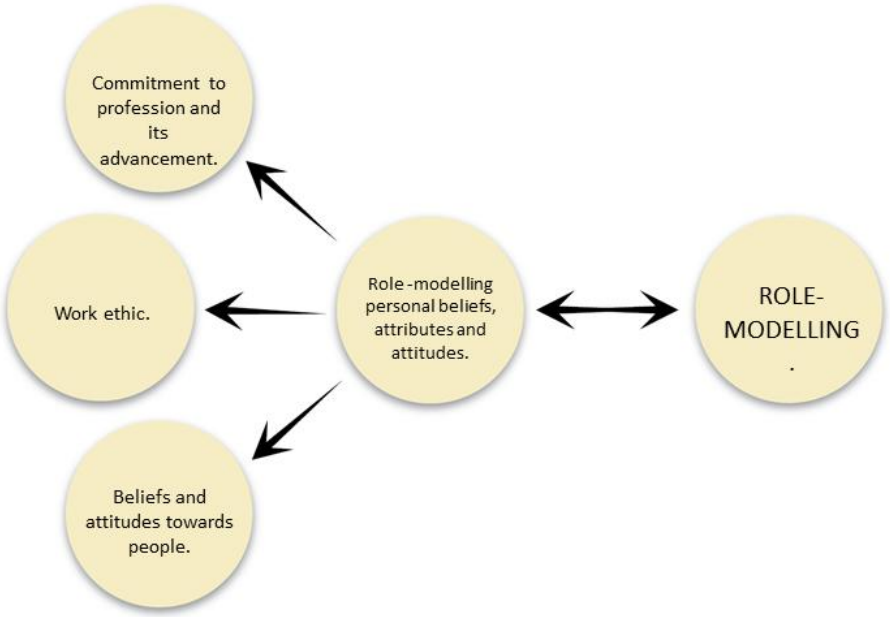


Figure 6.3: Core Values Influencing Personal Beliefs, Attributes and Attitudes

As can be seen from Figure 6.3, the three core values relate equally to being a quality clinician and OT-CE. The first core value identified is 'commitment to the profession and its advancement' and probably influences the desire to educate and contribute to the future of the profession. Professional values speak to how the profession is developed and practised. Occupation- and evidence-based practice is important as it is how the individual occupational therapist accommodates new developments through continuous professional learning and development. These issues were highlighted in the focus groups.

The second value, 'work ethic' considers how the service is delivered on a daily basis against the background of a particular service environment within a particular governance structure and context. Important here are: accessibility, appropriateness, quality relative to the needs of the clients, how the service transforms relative to changing needs, professional advancements, and expectations of the service provider. This emphasises that OT-CEs should be service- rather than self-driven.

The final core value is 'attitude towards people'**.** This core value influences the types of interactions with clients, family members, colleagues and students, and directs the enabling nature of all professional relationships. The literature describes many personal beliefs, attributes and attitudes, which can be clustered into four main themes: being organised; supportive, empathetic and sensitive to needs and feelings; respectful, culturally competent, non-judgmental and adaptive; and engaging and facilitating autonomy.

6.1.2.2 **Roles and functions of an OT-CE**

In addition to having appropriate personal attributes and characteristics, becoming an OT-CE involves a learning process (see Figure 6.2) in which the roles and functions have to be learnt. The literature suggests that to be a competent OT-CE a clinical occupational therapist requires understanding of the nature and extent of the roles and functions in two areas which are equally important: effective practise of the profession and teaching and learning [43, 86, 92, 113, 307, 325, 326].

All South African occupational therapists involved in the clinical education of OTSs have a recognised undergraduate occupational therapy qualification and have to register with the statutory HPCSA to practice [212]. However, inherent in the role of being an OT-CE is experience in the practise of the profession. According to Costa, only experienced professionals should be charged with the responsibility of teaching, although the profession has given little guidance on what defines experience other than time [1]. The experience periods of one year and six months have been cited by the WFOT and HPCSA respectively [7, 29]. However, using Dreyfus and Dreyfus's model of skill acquisition, the competency level, which is the third level of this model, is where Costa recommends that clinicians should supervise their first student. At this competency level, they are regarded as a competent or proficient practitioner [327]. However, Costa cautions that being a good clinician is no guarantee that the individual will be a good OT-CE, as clinical education is an intervention in its own right that is supported by its own body of knowledge [1]. McAllister has more pragmatic criteria and proposes that readiness to be a clinical educator can be determined by when a clinician is 'comfortable in new shoes' which she described within her Lived Experience Model [106 p.156]. Some authors rate this experience in time periods ranging from six months to three years [1, 7, 29] while others suggest that readiness to take on the clinical education of students is not

time related, but is dependent on the achievement of professional skills which allow the occupational therapist to be considered ready to become an OT-CE [206, 325].

Although the clinician role is most pertinent within the professional role and functions of the OT-CE, there may be other roles such as advocate, consultant or researcher which may be relevant, depending on the context in which the clinical education is taking place. The main functions of an occupational therapy clinician are reported to be: the occupation-based assessment of an individual or group of clients in different settings and the development of collaborative goals; occupation-based interventions which are delivered and evaluated for quality assurance; ethical recording and reporting of professional activities; teamwork and collaborations; practice management appropriate to context and service governance structure; and professional development [328].

In addition the OT-CE would have to assume an educational role which, according to the literature, includes the following functions: planning and managing the OTS's education experience, facilitating the OTS's learning through observing, giving feedback, demonstrating and explaining; teaching the student how theoretical information is applied in the occupational therapy process of a specific or group of clients; supporting the student during the learning process; and then evaluating performance and assigning marks [87].

The educational and professional roles are enacted in the context of the OT-CE-OTS educational relationship (see Figure 6.4), and the nature of the interaction between the OT-CE and the student may influence the manner in which these two roles and functions are played out. This requires a convergence of role identities to understand that in being an OT-CE 'we are not necessarily supposed to make students competent in our skills but to rather create learning experiences that nurture their skills, knowledge and expertise' [329 p.1].

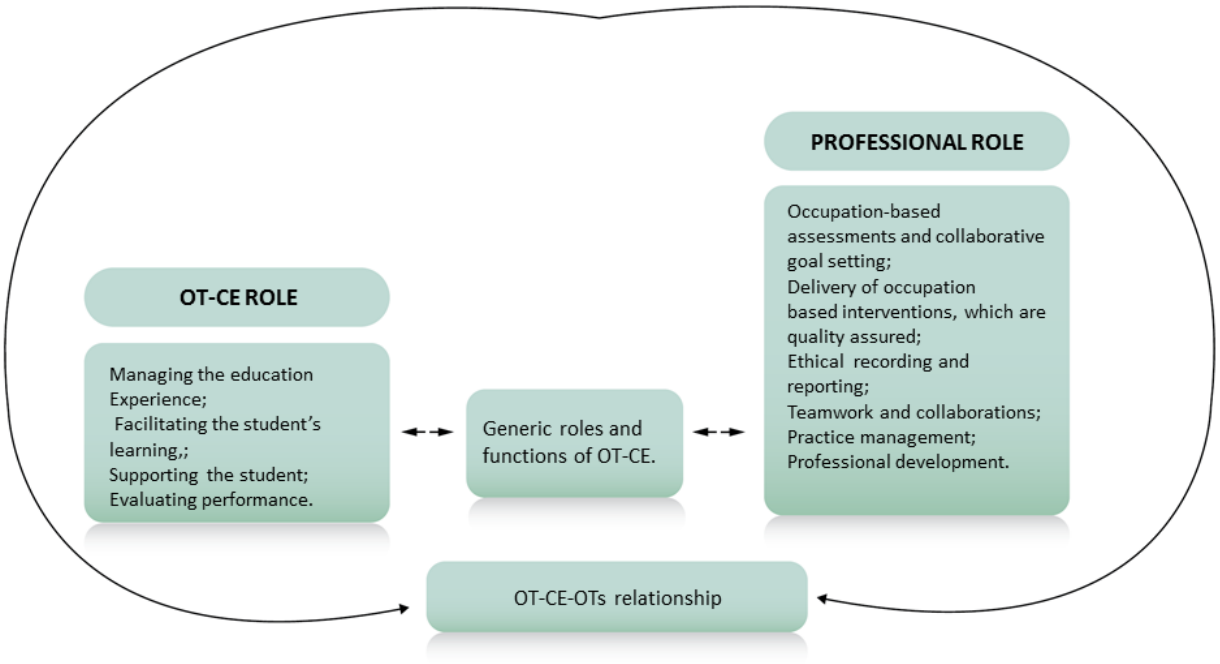


Figure 6.4: Generic Roles and Functions of an OT-CE

The next sections in this review will elucidate the educational core knowledge, skills and beliefs needed to be an OT-CE. The professional roles and functions will not be discussed as it is assumed that these are in place as the OT-CE has a professional qualification that is registered with the HPCSA.

6.1.2.3 Educational knowledge, skills and attitude needed to be an OT-CE

Clinical education is ideally a mutually beneficial collaboration between the university and on-site OT-CEs who should have a common vision for clinical education [330]. The collaboration aims to design and implement a clinical curriculum to give OTSs the best opportunity to transition their theoretical knowledge into clinical competencies at strategic points in the curriculum. For this reason clinical experiences vary in focus as well as the time until the exit level outcomes have been achieved, ideally within the minimum stipulated 1000 hours of Clinical education. However, experience has shown that some students need more time.

To collaborate assumes that that both parties have a common understanding of the occupational therapy programme's educational philosophy, model and approach; also

how this relates to the organization of the total curriculum, how students are expected to learn, and therefore how teaching should facilitate learning in the clinical context. Additionally, there needs to be a common understanding of the clinical competencies that students are expected to master, as well as the learning domains of these skills [331]. Thus the OTS's learning outcomes, learning activities and clinical requirements prescribed for any one clinical education block should be viewed in the light of the whole curriculum, so that the expectations of the current block are viewed against where OTSs are in their professional development [216]. An OTS's level of professional development is linked to what has been learnt previously, the current focus, and what professional competencies still need to be achieved in future clinical experiences [118, 330]. Thus the roles and responsibilities of each partner need to be negotiated, overt and documented for each clinical education block, as they may differ over time and with respect to the individual needs of the student [330]. The main roles of the OT-CE have been identified as: planner, facilitator, teacher, information and resource provider, and assessor [322]. These roles will be discussed further in the sections that follow.

Planning and managing the clinical educational experience

In this section, managing the educational experience does not refer to the management of all clinical education within a particular clinical education site, but to managing the clinical education experience of a single or small number of students within a single block, depending on the clinical education model being used (See 1.2.8). The literature reviewed in this section has been described under three headings defined by the researcher to address the knowledge and skills that the CE should have to manage OTSs' clinical education experience.

Preparation of the clinical education programme

Advanced planning and preparation has been reported to be critical [332]. Universities should negotiate OTS numbers and the dates of clinical education blocks well in advance, so that departmental managers ensure appropriate planning before the OTSs' arrival.

Establishing an education friendly environment and atmosphere has been reported to be important to the success of clinical education at any site [100, 333]. This may include alerting senior management, medical and other allied medical staff that OTSs will be

interacting with them and contributing to client care. Appropriate OT-CEs should be appointed to this dual role and briefed as to their responsibilities, block requirements, outcomes and evaluation dates so that appropriate clients can be selected, and consent obtained to having a student participate in their care [299] . This preparation should include a review of the OT-CE's legal and ethical responsibilities towards the OTSs, as well as to the client and employer [1, 212]. The OT-CEs should consider how they will manage their time in order to fulfil this additional responsibility within their workload. Appropriate working space and resources should be planned for OTSs [100]. In keeping with university and hospital policy, OT-CEs should be briefed on the procedure to be followed in the event of critical incidents involving OTSs such as needle stick injuries, hijackings, client care issues, lack of educational progress and unethical behaviour [100].

A programme of clinical learning opportunities should be planned that is mindful of the block requirements, including dates of the evaluation, and other learning activities. Discussion with university staff and OTSs may be needed concerning the block requirements and placement constraints before finalisation, to ensure that all education needs and logistical considerations are met and that OTSs are not unduly overloaded [216].

Managing the clinical education programme

Students reported in the focus groups that their welcome and first day experiences were critical to their overall experience of the entire clinical education block. Brown and Kennedy-Jones support this and suggest that a 'warm welcome' and 'positive, learning–orientated impression' set the scene for a positive learning experience [100 p.55]. This should include an introduction to occupational therapy staff and other colleagues with whom OTSs may have to interact, an orientation of the institution and occupational therapy department, the space in which they will work and the resources that they may and may not use. Briefing concerning the dress code, working hours and hospital and departmental procedure should be explained. A written document reinforcing all of these is useful as OTSs often feel overwhelmed with information on the first day [216].

Individual OT-CEs should review anticipated outcomes, requirements and expectations with the students, noting previous experiences and any personal needs and learning objectives that the OTSs might have, as well as discuss the clinical education processes

that will be used. Lines of communication should be established and key dates for educational activities and formative and summative evaluations set out [100].

Managing clinical education within daily work demands

Managing daily job responsibilities alongside the responsibilities of clinical education of OTSs was reported in the focus groups to be a significant challenge for the occupational therapy managers. This was cited as the main reason the OTS numbers are restricted per clinical education site. Many authors report that clinical education creates role conflict and additional work strain and propose clinical education to be responsible for high levels of burnout [87, 334]. Occupational therapists, like many other health care professionals, have been reported to be at risk of job strain and ultimately burnout if stressors are not mitigated [335]. High job demands such as high caseload and long work hours; low job control factors due to their role and function being misunderstood; not being able to serve clients' occupational needs due to early discharges; poor remuneration; lack of advancement opportunities; lack of appreciation; inadequate resources; poor professional identity and low support are reported in the literature as contributing to work stress [246, 334, 336]. When occupational therapists do not have the personal resources to manage these stressors the symptoms associated with burnout become evident: physical and emotional exhaustion, depersonalisation, cynicism, and feelings of low professional efficacy [336-338].

Clinical education is reported to also create work strain, stress and even burnout, as identified in the focus groups in the earlier aspect of this research. This may influence the willingness of occupational therapists to become or continue as OT-CEs [339]. Clinical education is reported to be complex and demanding, and takes up a disproportionate amount of time in situations in which the OT-CEs may already be experiencing moderate role strain, role conflict, role ambiguity and role overload [99, 322, 337, 340]. This together with the increasing demands for service delivery places OT-CEs under increasing work stress and strain [8]. An American study by Barton, Corban, Hennri-Warne, Mc Clain, Reihle and Tinner suggested that job strain may be increased when OT-CEs are inexperienced and ill prepared for the role [339]. While some OT-CEs report the stress of clinical education as an additional burden to their already heavy professional work load, there are those OT-CEs who seem to find the challenges of clinical education satisfying and rewarding [317]. This is supported by a study by Olinsky who found lower levels of

burnout and a sense of greater accomplishment in Israeli OT-CEs as compared to those not involved with OTSs [341]. Some authors have ascribed this to the phenomenon of job engagement. Job engagement has been described as the antithesis of burnout and is characterized by energy, active involvement and a positive sense of professional efficacy in spite of dealing with a high workload [332, 336, 342].

Ruesseller and Obertacke advocate that reducing OT-CE burnout in busy clinical settings is linked to time efficient clinical teaching. This is achieved through advanced planning, creating a safe and respectful learning environment; and selecting the most appropriate teaching methods, followed by feedback which is both a therapeutic and educational experience, through self-reflection which may be reflection-in-action or reflection-on-action [332, 343].

Mc Allister, advocated that the development of the following dimensions within their daily work demands were helpful in developing job engagement and the reduction of burnout: sense of self/self-concept as a clinical educator; a sense of self in relationship with others; a sense of being a clinical educator; a sense of agency as a clinical educator; and a dynamic sense of self congruence [317].

All OT-CEs should strive to actively engage with the job of clinical education within their daily work by accepting clinical education as a platform for personal growth and development; being self-aware as a clinician through critical self-reflection to seek meaning, value and satisfaction; becoming more outcome focused, more flexible and learning the skill of ‘stepping-out’ and ‘stepping–in’.

Work strain and stress is reduced by learning to practise multi-focusing and multi-tasking so as to deal with the increasing number of job tasks; insisting on support and opportunities to debrief; as well as celebrating achievements. While the work strain and stress of clinical education in addition to the demands of a helping professional may not be entirely avoidable, recognizing the symptoms of burnout is essential to managing this problem, as are the regular practising of stress management techniques and lifestyle management strategies in which occupational therapists are well versed [317, 334, 344].

Facilitating student learning

In the context of occupational therapy professional education it is the university educator's responsibility to teach occupational therapy theory, methods and techniques in accordance with the agreed educational philosophy, method and approach. It is the OTSs' responsibility to bring their classroom knowledge and practical experience to the clinical placement site, to be open to all professional learning, and independently take responsibility for this.

The OT-CE is responsible for providing the opportunities for the OTS to transition their classroom knowledge into practise on 'real live clients' safely and ethically, and also to facilitate this learning process using the same educational philosophy, method and approach [7 p24]. Facilitating knowledge implies that the OT-CE enables the OTS to construct clinical knowledge and expertise in a dynamic way by building knowledge and skill through doing, and reflecting on this practice rather than by providing the information [322]. This process will only be successful, if there is a successful collaboration between parties. Students need to be motivated to learn, devote their energy to actively engaging in the learning opportunities created for this purpose, and reflect on and evaluate their mastery of the learning activities and outcomes [69].

Occupational therapy-CEs need to be motivated to teach in the context of clinical practice and understand the clinical skills that must be achieved. Research into physiotherapy clinical education found that many clinical educators viewed clinical skills as just the performance of a set procedure. However, the research suggests that acquiring clinical skills is more complex and requires the integration of three different types of learning: learning the psychomotor aspects of the skill (procedural knowledge), learning why the procedure has to be done in a particular way (basic science and applied knowledge) and finally what the result of the procedure means (clinical reasoning) in the context of an assessment or treatment protocol [331]. For the learning of skills and the achievement of competencies, the OT-CE must also create an environment that is educationally appropriate and supportive, and accommodates the uniqueness of each student both personally and in terms of learning needs. The OT-CE must create appropriate learning opportunities to allow the student to learn the clinical skills and behaviours appropriate to that block, and must present the educational activities in a meaningful manner. Formative feedback must also be provided to

enhance learning and achievement of the learning outcomes for the block and appropriate professional behaviours [128].

The learning that students need to engage in to meet the course outcomes can be separated into: professional clinical competencies that are ethical, safe and appropriate to the needs of the clients and in line with the country's policies; and professional socialisation so that students incorporate the values of the profession into all professional activities, including being critical thinkers, problem solvers, reflective practitioners and users of best evidence to support their practice.

To achieve this, OT-CEs should use the principles of adult education and ideally the PBL process to facilitate this learning, as transfer of knowledge is one of the motivating factors behind using PBL as a teaching strategy [74]. The main principles of adult learning include: willing participation and critical reflection; learning should take place in meaningful contexts; learning activities must take cognisance of the students' previous knowledge and experience: learning should be self-directed and enhance self-awareness [128]. It has been suggested that motivating an OTS to learn is a product of good teaching, rather than a prerequisite for learning [322].

The above principles are consistent with the fundamental principles of PBL: learning is self-directed; must be made meaningful and relevant; it should have clear goals and objectives and a specific purpose; knowledge must be at an appropriate level, starting at the student's current level of knowledge; active involvement is essential as just listening and observing does not lead to deep knowledge; feedback and time for reflection on performance and on learning are important [76, 81, 332]. The OT-CE should assist the student to make the transition from requiring external feedback and reflection to shared feedback and reflection, and then finally internal feedback and critical review [332]. These are essential steps in the development of lifelong learning, which is a core outcome of occupational therapy education. However, to achieve this students need considerable support: academic support as well as support for personal and professional growth.

Learning seldom occurs without the assistance/support of an OT-CE, even if the emphasis is on what OTSs should do to achieve the educational outcomes, rather than what the OT-CE must provide to help them learn [322]. However, OT-CEs need to be

aware that students seek and avoid assistance and support for a variety of reasons: they think they know; they want the OT-CE to feel good; they need reassurance; they do not want to show their ignorance; or they are sure that the OT-CE does not know/cannot teach them.

Supporting struggling and 'at risk' OTSs requires considerably more of an OT-CE's time and effort than for the average student. These OTSs can be identified by an OT-CE as they often display behaviour that they find difficult to manage such as high anxiety, frustration, passive aggression, boredom, de-motivation and poor time management [345]. Identifying the nature of the OTSs problems and the causative factors, which may be personal, academic, ongoing or recent, is essential to any remediation process. Poorly performing students, in addition to their work related problems, frequently have negative thoughts and feelings about themselves, the profession, the OT-CE and clinical context, which impact on their learning. These thoughts and feelings need to be interrogated and resolved, either by the OT-CE in the clinical setting or through referral to some other agency [345].

In the focus groups there was debate about what OT-CEs should be told about 'at risk' students. Students on the whole are reluctant to have the university staff inform OT-CEs of their educational difficulties, assuming that OT-CEs will have a biased view of their abilities from the start of the clinical education block. Clinical educators had a divided view: some would like to be informed so they are prepared and can provide additional support during the block, and others do not wish to know so they are not biased. The university staff, mindful of the Protection of Personal Information Act introduced in 2013, encourage students to share information about any difficulties that are influencing their clinical performance, but it their choice to do this or not [346].

Coping with work related stress is an important educational outcome as it has been reported that how students learn to cope with their stress reflects how they will cope with their stressors as professionals. Clinical educators need to recognise stress related behaviours, appreciating that each OTS has a unique style of coping with stressors, and that stressors reflect different themes depending on the nature of the clinical education blocks, clinical experience of the student as well as personal/family issues that they may be dealing with [347]. Debriefing activities in clinical sites may be helpful in allowing an

OTS to reflect on the reality of their anxieties and develop more effective coping skills [216].

6.1.2.4 **Assessing performance**

Assessment is inherent in any clinical education context, but for the assessment to be valid and reliable, OT-CEs need to make time in their work day to ensure they have sufficient opportunities to see the student in action in order to make a considered evaluation [227]. The purpose of assessment is to gain information about the student's professional and clinical abilities relative to the expected clinical education block outcomes; provide feedback to inform learning; identify clinical weaknesses that require attention and allocate marks [25, 348]. Throughout a clinical education block OT-CEs use a process of continuous assessment to gain information about an OTS's clinical knowledge and competence; weaknesses and challenges; and provide formative feedback both formally and informally. Feedback is given on a variety of different learning activities such as client assessments, treatment plans, observations of sessions with clients and interactions with other staff, reporting in multidisciplinary team meetings and case reports. In all cases the OT-CE has both a teaching and evaluation function. While these functions are inherently linked, they have strategically different purposes which need separation: teaching is to provide feedback for improvement, while evaluation is a judgment of achievement of a defined standard which usually results in the allocation of a grade/mark [348].

In the middle of each clinical education block there are two formal formative evaluation events: A clinical evaluation attended by the OT-CE and the university clinical educator where the student presents a client or group of clients that he/she has been working with according to a defined format, and demonstrates a treatment session. As this is considered a learning experience it is also attended by the other students who are required to give a reflection on the student in the form of a peer review. No marks are attached to this and students are given feedback on their performance together with suggestions for improvement. Any remedial activities needed are determined at this time.

Both the OT-CE and the OTS independently complete clinical skills reports at this time. These reports form the basis for discussion of the student's progress towards meeting

the requirements for the block. Students have an opportunity to query marks and OT-CEs evaluations, plans are set out for students to gain the required competencies, and the mid-block evaluation mark is finalized.

This same evaluation process is repeated at the end of the block and this forms the block summative evaluation for the clinical education block. However, there are some formative aspects which they take forward to the next block as some clinical learning is discreet for the field of practice but other clinical learning is cumulative over time. Marks are allocated for the OTS's reflection and critical evaluation of his/her treatment demonstration, which contribute towards the final block mark.

Although all OTSs have the same clinical assessment process and every effort is made to make the assessment reliable and valid through the use of scoring rubrics, OT-CE's judgement of the quality of the OTS's Clinical education is subjective and largely influenced by the OT-CE's experience and professional development [25]. It is for this reason that the university CEs contribute to the evaluation, to ensure that the evaluation is fair, marks are not biased and that there is reasonable consistency in the standard expected and evaluation of students at different clinical training sites.

Students who do not meet the block clinical outcomes are a concern. Not meeting the outcomes is emotionally draining for the student and the OT-CE [227]. The OT-CE often feels she/he has failed in the OT-CE role, however if the assessment process is well defined with set criteria which the student cannot meet, then the student fails the assessment, and the OT-CE cannot be responsible for the student's lack of achievement [349]. Occupational therapy-CEs are often reluctant to fail students. Reasons frequently given for barely passing a student are that the student tried very hard and effort should be rewarded; lack of OT-CE time; lack of understanding of the outcomes; feeling sorry for the student and the consequences of failing; concern that they, the OT-CEs, will not get support; and poor knowledge and understanding of clinical education and the processes involved [227].

Good feedback to students is one method of avoiding failures. Feedback has been described as critical to clinical learning, and without adequate and timely feedback an OTS's clinical learning is both delayed and incomplete [1]. Feedback takes many different

forms: written, verbal or audio-visual, provided the client has consented to the latter. The OT-CE is the most common source of feedback, which can be given to OTSs individually or in groups, and can be direct as a result of observing an OTS's performance or indirect which is assumed from an OTS's description of an assessment or treatment process [1, 348]. Other occupational therapists or members of the MDT can also give the student feedback, but this should be monitored by the OT-CE. The client is another important source of feedback on student performance, which is insufficiently used [350]. In spite of needing feedback to learn how to improve clinical competencies, to avoid mistakes that may harm the client, or to motivate and encourage positive professional behaviour from experience, OTSs find feedback threatening and are often selective in what they hear. If their anxiety is high they may not listen to what is said. Thus more than one type of feedback may be helpful. It would seem that giving credible, comprehensive and meaningful feedback is a skill that OT-CEs need to acquire.

To be of educational value feedback needs to be given as soon as possible so that any incident and associated professional behaviour, whether positive or negative, are fresh in the OT-CE's mind. Thus feedback opportunities should be built into the daily routine of clinical education. The literature proposes that feedback needs to be given in the first person, using appropriate tone and language, considering the OTS's self-esteem and sensitivities, as well as acknowledging and validating the OTS's feelings [125]. It should be given in an appropriate place, and if corrective in nature should not be in public or in a way that demeans or humiliates the student. To ensure this the feedback should describe rather than evaluate, and be specific, accurate, based on fact and supported by evidence. The feedback should be focused on the professional behaviour of the OTS and not on the person [1, 349]. Feedback should be meaningful, relevant and constructive so that the OTS knows how to remediate the problems and what the criteria are for success. Negative feedback should always be accompanied by some positive feedback either by using the 'sandwich method' or the 'PEARLS' method [351]. Students need time to consider and reflect on any feedback that is given, and the OT-CE should always check on what the OTS has heard and understood and be prepared to answer questions and discuss the feedback. How receptive the OTS is to feedback is often a function of the nature of the relationship with the OT-CE [349].

6.1.2.5 **Occupational therapy clinical educator student relationship**

Kilminster and Jolly propose that the quality of the relationship between the OT-CE and the student is "the single most important factor for effective" clinical education [92 p.828]. Some authors have suggested that the nature and quality of relationship with an OT-CE influences the nature of the clinical education experience of the OTS and may influence future career plans [41, 234]. Others suggest it is the criterion that separates a good OT-CE from a poor OT-CE [322].

Developing a clinical education relationship is challenging for both OT-CEs and OTSs since their clinical education blocks are relatively short, varying from four to six weeks. Thus a clinical education relationship is by nature a short-term, professional, work-outcome focused, dynamic and enabling relationship. This relationship also needs to keep pace with the education process and support the individual OTS's needs as the required clinical competencies are learnt [1, 89, 325].

The success of the relationship between a student and OT-CE lies in understanding its purpose, the complexity and the multifaceted nature of the relationship, as well as having the awareness of how these influence and challenge the interaction and behaviour of the individuals involved [1, 352].

The purpose of the relationship is to facilitate the transitioning of classroom learning into appropriate, ethical, safe professional clinical skills on 'real live' clients. This clinical learning process is facilitated through the OT-CE teaching and OTS learning from the 'lived experience of occupational therapy' using clinical reasoning, reflection and professional socialising. However, as reflected in the focus groups in Chapter 4, this is an unequal and sometimes difficult relationship, with the OT-CE being much more powerful in the relationship. Students view OT-CEs as powerful because they hold the authority for their clinical evaluation and marks, and ultimately for their passing or failing the year. The students report feeling powerless and consider having a good relationship with the OT-CE as the most important factor for success [352]. As reported in the focus groups, students will compromise their values and turn a blind eye to unethical practises to maintain a positive relationship to protect their marks.

Clinical educators hold many types of power in the clinical education process: “expert power (technical knowledge and expertise to assist student performance and judge student performance credibly); reward power (rewarding the students for what they have done); legitimate power (to encourage students to take responsibility and demonstrate commitment); referent power (to encourage acceptance and feelings of being valued) and coercive power (punitive actions)” [352 p200]. However, it is the judicious use of these powers in a consistent, fair and equitable manner that gives OT-CEs credibility and trustworthiness [352]. It also influences the CE-OTS relationship and the OTS experience of the learning process when it is used unwisely and punitively, as raised during the focus group discussions.

Occupational therapists are well trained in forming therapeutic relationships with clients and therapeutic use of self in therapeutic enabling relationships. However while clinical education relationships have many similarities to therapeutic relationships, they are different in many respects [353].

There is considerable literature on the methods and styles of clinical education but limited literature on the nature and characteristics of this very important relationship. Medical education literature states that the relationship between the student and the teacher should be collegial but needs to have clear boundaries that are negotiated and agreed on between the OT-CE and the student [354]. Dobransky has developed and tested a model to optimize learning through the teacher-student relationship. This model describes five factors that influence the quality of the working relationship between the student and educator, facilitating the quality and purpose of student questioning and student motivation, which then have a direct bearing on the quality of student learning. The five factors are: shared control (where the relationship is open to alternative ideas and solutions and collaborative problem solving); teacher immediacy (where the OT-CEs honest interpersonal verbal and non-verbal responses to the student are individualized, encouraging, demonstrate active listening and encourage discussion rather than a didactic discourse); teacher caring (OT-CE demonstrates having the OTS’s wellbeing at heart and is concerned about the learning experience and learning outcome in a non-personal way); student affinity seeking (OT-CE developing the OTS’s sense of belonging and solidarity with the teacher as a professional by asking opinions as though they matter, complimenting good work and effort, and sharing concerns and pleasure at

OTS's client's progress); and student immediacy (OT-CEs' honest interpersonal verbal and non-verbal responses to the OTS reflect that the OT-CE is open to communication, is hearing and is responding to the communication with an open mind) [155].

While the clinical education relationship is a two way process, the OT-CE should take the lead in the development and maintenance of the relationship, keeping in mind that creating an optimal OT-CE-student relationship takes considerable thought, interpersonal skill, sensitivity and educational skill [126]. Ryan suggests that the quality and timing of communications are crucial to the learning process, as is early identification of interpersonal difficulties, so they can be dealt with timeously and the resultant emotions defused [126].

One of the challenges with respect to forming an OT-CE-OTS relationship is the individuality of each student. This implies that no single approach is appropriate for all students. This may present a very specific challenge for OT-CEs as they need to adapt to the varying interests, learning styles and work habits of individual OTSs.

Various diversity markers need consideration in the CE-OTS relationship. The average age of the Wits occupational therapy final year students in 2011 and 2012 was 22.6 years. They are considered to be young adults and their learning should be facilitated using the principles of adult education. However, because of their limited life experience they have difficulty in dealing with tragedy and the harsh realities of life that they are exposed to within the health care settings and contexts in which they work. This requires that OT-CEs are sensitive to the students' emotional wellbeing. This includes providing support through the OT-CE-OTS relationship, and creating opportunities for students to unload emotionally through debriefing sessions where purposeful reflection is encouraged, or referral to the student support agencies if the student needs more assistance [41]. Many OT-CEs are also under 30 years of age and therefore are also young adults who face similar problems. The small age gap often makes it difficult for young OT-CEs to provide the necessary support for OTS's emotional wellbeing, as the OT-CEs are grappling with the same issues in situations where there is limited or no professional supervision. Age and experience of OT-CEs were raised in the focus groups as issues which influence the credibility of the OT-CEs in the OTSs eyes, which

impacts on the CE-OTS relationship, making the formation of this important relationship that much more difficult.

Most students in occupational therapy classes are female, with less than 5% being male [95]. This is also true of the OT-CEs, thus cross-gender CE-OTS relationships are uncommon. While research does not suggest that gender has any influence of teacher efficacy, it is reported to have other influences such as role-modelling in society and empowering students especially in male dominated societies [355]. Cross gender issues have been raised in relationship to clinical education and mentoring relationships in rehabilitation professionals, although the research is very limited [356]. Peer resentment was also mentioned if female students believe that a fellow is being advantaged because she is working with a male OT-CE [356].

Although racial composition was not explored in any study in this research it is common knowledge that the occupational therapy profession is also not yet representative of the South African population. A priority is to transform the student body, thus more diverse students are being admitted. This is important because the multicultural nature of the country requires occupational therapists to treat clients from all racial and cultural groups; therefore cultural sensitivity and competency are critical skills [357], not only in practice but also in clinical education.

Students of different cultures bring with them differing beliefs and value systems which impact on the way in which they understand and ascribe meaning to their clinical experiences and their own life events, as well as those of their clients [358]. Students of differing cultures also often have English as their second or third language. This may influence their language proficiency and the way in which professional phenomena and experiences are described. Language competency may also affect the speed at which OTSs think and write, which is exaggerated if the OTS is stressed. These differences may also influence the relationship between the OTS and the OT-CE and the nature of support that such OTSs need from the OT-CE. Cultural sensitivity and competence are needed in dealing with OTSs of differing race, cultures and from a variety of socioeconomic contexts in order to understand their perspective and the way in which they interpret and respond to events. Language diversity may create language barriers

and social sensitivities that influence interpersonal interactions. Dealing with such OTSs needs patience and tolerance on the part of clients and OT-CEs.

Occupational therapy clinical educators also need to be constantly aware that they need to act as role-models for all students who need to deal with diversity among their clients so that they display an intentional respect for the client's culture in order to provide culturally appropriate care [357]. Clients, due to their diversity, may have different beliefs about health and illness, which may also be a challenge in understanding treatment regimens and the importance of compliance [123].

Munoz suggests that cultural responsiveness is a process that consists of a number of categories: exploring multiculturalism; building cultural awareness; generating cultural knowledge; engaging with others with different diversity markers from one's own; and applying cultural skills [357]. Seeleman, Sellerger, Essink-Bot and Bonke recommend that OT-CEs can become more culturally competent and further assist OTSs to become more culturally competent by: considering all OTSs equally and considering diversity as 'natural'; creating a safe space for OTSs to become aware of their own cultural and personal biases and how this influences their clinical judgment; stimulating an attitude of openness, interest and respect for diversity, and encourage OTSs to listen, explore and check understandings; working with an interpreter if language is a problem; offering OTSs the opportunity to work with clients from diverse cultural backgrounds [123]. Occupational therapy students should be encouraged to gain meta-level cultural information of the dominant cultural group within their client load, and OT-CEs should alert OTSs to the dangers of stereotyping [123].

6.1.2.6 **Learning styles and preferences**

All OTSs bring their own learning style and preference into the clinical education context. Occupational therapy clinical educators have to identify the OTSs learning style and try to provide learning opportunities and a method of communication and instruction that best suits the OTSs learning style. Often this is a challenge for OT-CEs.

The literature suggests that in clinical education, where there is a strong emphasis on both teaching and professional socialisation, the coherence between the learning styles of the OT-CE and student is an important factor in the manner in which classroom

information is transitioned into practice [128]. It is also a factor that influences the communication about learning between the OT-CE and the student, and ultimately impacts on the nature and quality of the relationship between the two parties. Thus learning styles have particular relevance in experiential learning such as clinical education, especially if the learning styles of the OT-CE and OTS are different [359].

A learning style is considered to be a relatively stable personality trait that influences the way that an individual approaches learning and learns through experience. On the other hand, learning preferences are more sensory and concerned with how the OT-CEs present the information to be learnt: visually through showing, orally through telling and kinaesthetically, for example, by letting the student experience movement [360]. Individual learning styles impact the way students understand/experience their practical learning, but also influences the way they reflect and think about the experience. This then impacts on their future actions [359]. Thus, an OT-CE has to decide whether the OTS will benefit from being told what to do, or whether showing them would be more advantageous, even if that were not necessarily the way they themselves learn best.

More recent research has suggested that the predominant learning styles of students are also a function of the environment in which that learning takes place [359]. Three layers are considered important and impact on a student's learning: micro-system (the clinical placement at which the clinical education takes place), the meso-system (other concurrent contexts in the students' life: where they live, their support system, pressures from other courses and life experiences) and the macro-system (the institutional values, practices and culture of the wider community) [359]. Thus OTSs' individual contexts and the manner in which they affect learning also need some consideration.

It has been suggested that both clinical educators and students should know and understand their personal learning styles, and that educators should be able to recognize the learning styles of their students so as to accommodate the style and create clinical opportunities to strengthen their preferred as well as their non-preferred learning styles [361]. A study on social work clinical supervisors in Israel demonstrated that although the supervisors were aware that their learning style was different from that of their students, and in spite of their desire to accommodate a student's style, they continued using their natural learning style and were either unable or unwilling to adapt

to the students [128]. This suggests some rigidity in learning styles and that it may be more difficult to adjust to the learning styles of students to facilitate learning than was initially believed. There is no research on OT-CEs that suggests that this situation would be any different.

There has been a number of studies to determine the preferred learning styles of occupational therapy students. All four of Kolb's learning styles were represented in the study cohorts, however there was a higher prevalence of the converger and diverger learning styles, with the accommodator learning style being the least preferred [361, 362]. There has been no study on South African occupational therapy students using Kolb's learning styles. However, a 10-year study was undertaken by de Witt and Franzsen using Bigg's levels of learning. This study was not intended to determine the preferred learning style but to consider the effect of the introduction of a PBL curriculum on the level of students learning. This study suggested that students adapt their learning style to work volumes and pressures [363].

6.1.2.7 **Students with disabilities**

It is estimated that 4% of students admitted to occupational therapy programmes have disabilities [103]. Occupational therapy, like other health related professions, is a popular choice of career for many disabled students [114]. In the past decade the human rights and disability legislation has encouraged people with disabilities (PWDs) to seek admission to Institutions of Higher Learning. Students may thus already have a disability at the time of admission or may sustain a disability, which may be permanent or temporary, during the education process. These disabilities differ in nature and severity and may not always be obvious to university staff or OT-CEs [114]. Many of these students require accommodations to achieve their learning outcomes, both academic and clinical. While there is much literature on the accommodations required by PWDs in the context of vocational rehabilitation and learning disabilities in the context of classroom education and examinations, there is very little written about these accommodations in the context of clinical education [364].

A British study by Hirneth and Mackenzie suggested that disclosure by the student and university support for both the student and OT-CE facilitated the clinical education process. However it was the balance between the extent to which reasonable

accommodations were needed, and the evaluation of student competence in relation to the expected outcomes, that proved more difficult, both practically and ethically [114]. Additional issues that challenged or facilitated the clinical education were the disabled students' insight into the impact of their disability on achieving the educational outcomes that were set, and their behavioural response to their need for help and accommodation [114].

While the CE-OTS relationship needs to accommodate all the factors described above to be successful, it must be remembered that this relationship can also be punitive and potentially harmful to the OTSs as indicated in the student focus group. A study of mistreatment of medical students reported that mistreatment frequently occurred in the clinical education context in up to 63% of subjects. Examples of mistreatment included sexual harassment, discrimination, harassment or humiliation based on race, religion, gender and sexual orientation, personal humiliation, intimidation and public belittlement, withholding of marks and use of evaluation processes in a punitive manner [354, 365].

6.1.3 **Conclusion**

To ensure that the clinical learning is enhanced at the clinical education site a number of educational principles can be applied: respecting the individuality of students and their experience; facilitating student learning by using the students' experience of the subject matter as the starting point for teaching and learning; creating and maintaining a learning environment that exposes students to continuous clinical experience where there is a balance between challenge and support, but at the same time ensuring client safety; making time for conversational learning through discussion about cases which creates opportunities for reflection, thinking and problem solving, guidance and support for independence; doing and reflecting on that doing, and linking theory to action; creating opportunities to have a conversation about negative feelings such as anxiety, frustration and insecurity that block learning, and about positive feelings such as a sense of competence and mastery that facilitates learning [359].

The inferences drawn from this literature review to describe an OT-CE skill-set are reflected in Table 6.1.

Table 6.1: Occupational Therapy Clinical Educator Skill-set

		Unit	Element
Foundation	**Personal attributes and characteristics**	**Commitment to the profession and its advancement**	Commitment to: Occupation based practice, Evidence based practice, Developing future OTs, Continued professional learning and development.
		Work ethic	Commitment to: A dynamic quality service delivery appropriate to context and need.
		Attitude towards people	Being: Organized, Supportive, empathetic and sensitive to needs and feelings, Respectful, culturally sensitive, non-judgmental, Adaptive, engaging and facilitating autonomy, Must have a positive attitude to students and their learning.
Process of Learning	**Roles and functions of a OT-CE**	**Professional role**	**Experienced** occupational therapist demonstrating knowledge appropriate to field of practice and level of health care.
		Educational Role	Must have an overview of the educational programme's education philosophy, model and approach; understanding the implications for the clinical education blocks. Describe the design and sequence of clinical education blocks to the transitioning of knowledge into the development of professional clinical competencies. Discuss the roles of the OT-CE relative to the other role players: university educators, site clinical coordinator and students. Explain the clinical education process. Identify the characteristics of the 'at risk' student and describe strategies to deal with them. Explain the characteristics of the excellent student and describe strategies to deal with them. Identify the stressors of OT-CE and methods of preventing burnout.
		OT-CE-student relationships	Describe the importance of the OT-CE-OTS relationship. Identify diversity markers and reflect on how these impacts on CE-OTS relationship and their relationships with clients. Describe the development and maintenance of an effective culturally sensitive OT-CE–OTS relationship. Discuss how to adapt interpersonal skills and method of relating to the students' needs. Identify and discuss how to respond appropriately to interpersonal and communication difficulties. Explain the process of counselling and debriefing students. Discuss the indications and process for referral for additional assistance (academic/personal). Mentoring to develop clinical education skills.
Acquired knowledge	**Competencies to be an OT-CE**	**Personal competencies**	Demonstrate professional readiness to become an OT- CE. Act as a positive role model.
		Clinical competencies	Demonstrate competence in: Occupational based assessments and collaborative goal setting, Delivery of occupation based interventions that are quality assured, Ethical recording and reporting, Team work and professional collaborations, Practice management.
		Educational competencies	Demonstrate competence in: Managing a clinical education block. Facilitating clinical learning to achieve specified clinical competencies Using the PBL process. Supporting students to achieve learning outcomes. Facilitating development of a professional identity. Formative and summative evaluation. Giving feedback. Grading of student performance. Manage clinical education of 'at-risk' students. Manage clinical education of excellent students. Mange clinical education of students with disabilities. Managing work stress and burnout
		OT-CE relationship competencies.	Form appropriate OT-CE-student relationships to support the CE process. Manage the power within the OT-CE relationship. Identify and manage problem behaviour.

6.2 DETERMINING THE SKILL-SET GAP

The study described below has been labelled as Study 6 for clarity. (See Figure 3.3). This is the second study in Part 2 of the research and explores the second objective:

To determine if a gap existed between the competencies the OT-CEs on the Wits teaching platform believed they had and those listed in the OT-CE skill-set developed in Study 3 and if a gap was identified the nature of the training needed. (See Table 6.1).

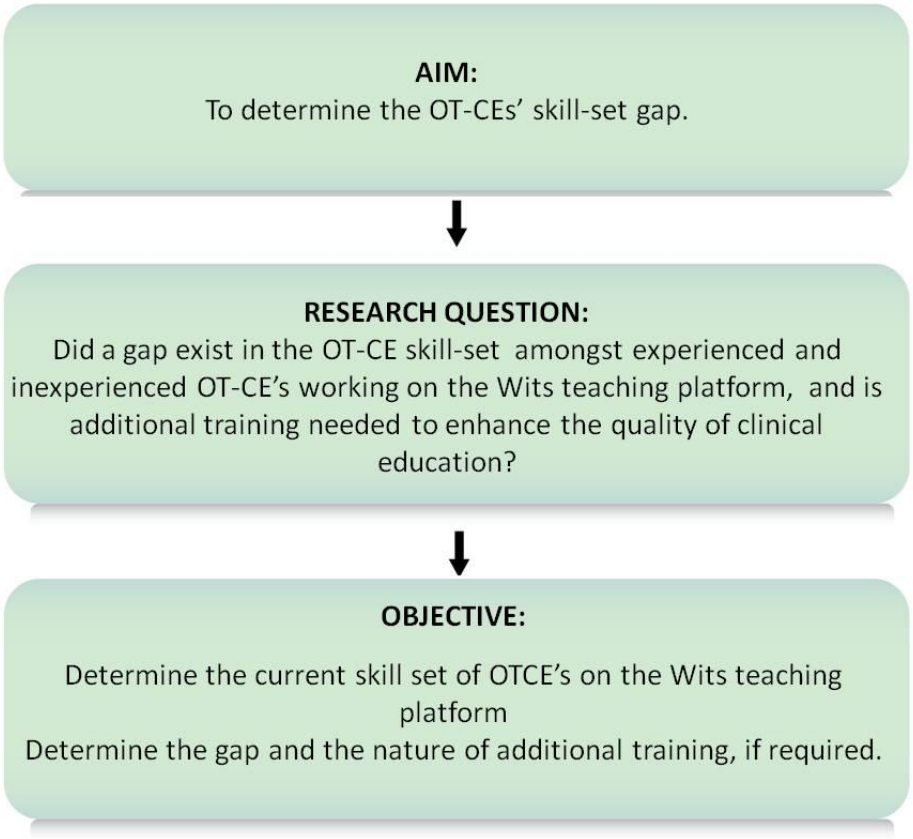


Figure 6.5: Components of Study 6

6.2.1 Research Method

A quantitative cross-sectional survey design was used to determine the gap between what OT-CEs perceived they knew about clinical education and the knowledge, skills and competencies described in the OT-CE skill-set [285, 366]. A survey design was used as the researcher wished to explore how OT-CEs rated their knowledge, skills and attitudes about clinical education at a single point in time against the knowledge, skills and attitudes that had been described in the OT-CE skill-set described in Table 6.1. The

purpose was therefore to examine the trends in the OT-CE's perceptions, and not explain cause effect relationships or predict outcomes [285].

6.2.2 Study Population and Sampling

Purposive sampling was used to select a representative sample by deliberately including individuals who met the criteria of having experience of clinical education on the Wits teaching platform, whether they were employed by the clinical education sites or the university [282]. As the population was small, random sampling was not utilized and the whole population was included [281]. The estimated number for the population was 85.

6.2.3 Data Collection Tool

The questionnaire used in this study was designed by the researcher specifically for the purpose of this research. To ensure content validity the questionnaire was designed based on the analysis of the literature that had been used to develop the OT-CE skill-set (See Table 6.1) [184].[283]

6.2.3.1 The questionnaire

The questionnaire was designed with three sections (See Appendix: F: 4):

Section 1: Demographic information of the participant

All questions in this section were answered in tick boxes and included age, undergraduate and postgraduate education, work experience, current job status (field of practice, post and sector), experience as an OT-CE (number of OTSs supervised in the last academic year, and rating of their perception of OT-CE experience) and CPD activities undertaken to develop knowledge and skills of clinical education.

Section 2: OT-CE skill-set

There were three parts to Section 2. In Part A and B participants were asked to rate their perceived knowledge (Part A) and skills (Part B) in relation to items listed within the OT-CE skill-set that described in section 6.1 of this chapter.. The questions explored both knowledge (56 variables) and skill (47 variables) in clinical education and included: the educational principles relating to the Wits clinical curriculum; the roles and functions of the different clinical education role players; how students learn; the purpose of the different learning activities included in clinical education blocks; different student

behaviours and how to identify and manage them; managing work load; and preventing burnout.

Respondents rated their knowledge and skill along a four point ordinal scale relative to their perception of their knowledge and skill for each variable at that moment in time [203, 207]. A Likert scale was used as there were two negative and two positive responses. The points on the Likert scale did not represent a score for each variable as the ordinal scale was not an interval rating scale.

Part C dealt with the OT-CE attitude and clinical educator behaviour. There were five questions in this part of the questionnaire. The first question related to motivation for being involved in clinical education. There were seven options to this question where the respondent had to answer either yes or no. At the end of this question there was an opportunity for respondents to add any other reasons for being involved with clinical education which had not been listed. This question was related to an OT-CE's commitment to and advancement of professional values (See Table 6.1). The remaining four questions were open ended and attempted to examine the sensitive issues of work ethic, beliefs and attitudes to people, without being prescriptive and listing attitudes.

Section 3: Criteria that would make a possible OT-CE course accessible

This section asked a series of questions about logistical issues that would need consideration in developing training if the final decision was made that additional education was needed. The questions asked the participant their opinion as to whether such a training course should be formal or informal, should be compulsory for all OT-CEs or not, should be for novice and/or experienced OT-CEs and whether it should award CEUs for participation. Other questions related to the manner in which such a course should/would be delivered: on-line and internet-based or face-to-face with some on-line components. All questions in this section were answered in tick boxes.

The first draft of the questionnaire was sent to an external expert and the researcher's supervisors to check that the questions were adequately formulated and that the meaning was clear and unambiguous [284, 285]. The questionnaire was redrafted based on the feedback. Spelling and typographical errors were corrected. The layout was reformatted. All questions were numbered and some questions were reformatted to

ensure understanding. An additional question was added to Section 1 related to CPD activities, as ongoing professional development had been highlighted in the literature as an important attribute for OT-CEs.

The second draft was piloted by three OT-CE experts who were asked to critique and give feedback on the questionnaire to establish face or content validity [284] [285, 367].

Two were experienced OT-CEs who did not work on the Wits clinical teaching platform and the third was a previous member of the Wits academic staff with many years of OT-CE experience. They were asked to complete the questionnaire and comment on:

- The time the questionnaire took to complete,
- The relevance of the questions in light of the purpose of the questionnaire,
- The ease of answering,
- Any ambiguous or unclear questions,
- Any other problems in completing the questionnaire [285, 367].

The experts reported that the survey took between 15-20 minutes to complete. They reported that the questions were appropriate to the purpose. Two questions were reformatted for clarity.

The final draft of the questionnaire (See Appendix F: 4) was sent to a member of the Human Ethics Committee (Medical) for approval as prescribed in the conditions of the ethics approval.

6.2.4 Data Collection Process

Copies of the final OT-CE skill-set questionnaire, the information sheet, ethical approval from the Gauteng Department of Health and Department of Education were distributed to the clinical heads of the 33 clinical education sites where final year students undertake their clinical education, as well as the 12 permanent Wits employed staff and the 21 sessional tutors. A total of 87 questionnaires were distributed.

Service managers were asked to allow all clinical staff to participate in the study (see Appendix F:1). Heads of clinical departments were invited to participate and those who agreed were requested to distribute the questionnaire and information sheet to their

clinical staff who had been OT-CEs of final year students during the past year and who would be involved in the next six months (see Appendix F:2).

No consent form was included as consent to participate was assumed if the completed questionnaire was returned.

All questionnaires were returned by fax, email and student- or staff-post to the departmental secretary who was not involved in the research. She removed any identifying marks from the completed questionnaires before giving them to the researcher for data processing.

6.2.5 **Data Analysis**

All data were entered and transcribed onto EXCEL spread sheets according to the sections of the questionnaire: Section 1 Demographic data; Section 2: OT-CE skill-set data:

Knowledge (Part A); Skills (Part B) Attitude and clinical educator behaviour (Part C) and finally Section 3: Criteria that would make an OT-CE training course accessible if it was considered necessary. The data were analysed quantitatively according to the sections of the questionnaire.

The returned questionnaires were initially divided in to five groups for data analysis: 1). Total sample; 2); Wits employed educators both permanent (full-time and part-time) and sessional OT-CEs 3); All the on-site OT-CEs; 4); On-site OT-CEs with experience (who rated themselves as competent, proficient or an expert in the demographic section of the questionnaire); and 5) on-site OT-CEs with little experience (who rated themselves as novice or advanced beginner). Thus the questionnaire of a single respondent may have been included and analysed in more than one group.

As the number of questionnaires returned by Wits employed sessional staff was very low, their responses were included with the on-site OT-CEs as they did Clinical education when not responsible for the OTSs. The number of questionnaires completed and returned by the Wits permanent staff was also low. A wave analysis was completed

on the university staff returns to estimate any bias due to the low response rate of this specific group [176].

As the numbers of respondents in each of the five groups described above was small, the five groups of respondents were collapsed into three: total sample, experienced group of OT-CEs, and inexperienced OT-CEs.

After the initial data analysis it was noted that the numbers of responses in some of the four options on the ordinal scale were very low. Thus this ordinal scale was also collapsed as follows: excellent and some knowledge/skills were grouped as good knowledge/skill, and little and no knowledge/skills options were grouped as inadequate knowledge/skill.

Descriptive analysis was used to describe central tendencies within total sample and the two groups into which the sample had been divided (means, mode and frequencies) as well as the variability by examining the range of responses by respondents on variables [303]. Thus descriptive analysis was used to describe the rated perception of knowledge and skill by respondents in the total sample and two groups of respondents (the experienced and inexperienced groups). Descriptive analysis was then again used to determine if and where gaps existed in the knowledge and skill of the experienced and inexperienced respondents. The frequency of responses by respondents for each variable was calculated as a percentage (e.g. % with adequate and % with inadequate knowledge/skill). As the groups were not uniformly distributed the median and quartile ranges were used instead of means to represent the descriptive analysis of the data [368] A Chi-square or Fisher Exact test (where there were less than five respondents in a specific data cell) was used to determine if the frequency of responses of the respondents in the experienced and inexperienced groups was significant/different or not [203].

To determine if there was a significant difference overall between the experienced and inexperienced groups of OT-CEs, non-parametric inferential statistics were used as the experienced and inexperienced group sample numbers were small (all less than 30) [296, 369]. The overall difference in the adequate and inadequate knowledge/skill in the

experienced and inexperienced groups of OT-CEs was determined using the Chi-square test. STATISTICA version 12 was used to do these analyses.

Descriptive statistics were also used to describe the central tendencies within the questions requiring yes/no answers in Part C of Section 2 and 3 of the questionnaire (means, modes and frequencies). The open-ended questions in Section C on attitude and clinical educator behaviour were analysed qualitatively using content analysis [370]. All the responses were transcribed on to an EXCEL spread sheet. Data were coded initially using an inductive process followed by a deductive procedure in which the data were compared to the attitude component of the OT-CE skill-set, and finally the preponderance of codes was used to determine themes and sub themes [371].

6.2.6 **Results**

Sixty-one questionnaires were returned: 55 completed questionnaires and six unused questionnaires. Two envelopes, containing four questionnaires which had not been delivered to the on-site OT-CEs, were returned to the researcher. Thus 83 questionnaires were distributed and 61 were returned. This represents an overall return rate of 73.4%, which is considered adequate for a mailed survey [184]. Only five of the permanent university staff and three of the university sessional staff returned their questionnaires. This represented only 24.2% of this group, a disappointing return for a specifically targeted group. The wave analysis suggested that the non-return bias for this specific group was low as there was very little difference between responses returned first and those returned later [176]. Forty-seven of an estimated 54 CEs returned their questionnaires, which is an 87% return rate and considered good [184].

Two of the returned questionnaires were sent by facsimile and had to be discarded as they were illegible. Thus 53 questionnaires were analysed which is 63.8% of those distributed. However, two questionnaires were returned with Section C incomplete. These two questionnaires were nevertheless included in the analysis.

6.2.6.1 **Demographic information about the sample (Section 1)**

As can be seen from Figure 6.6 60% of the sample was under 30 (n=32) and only 4% were over 50 (n=2).

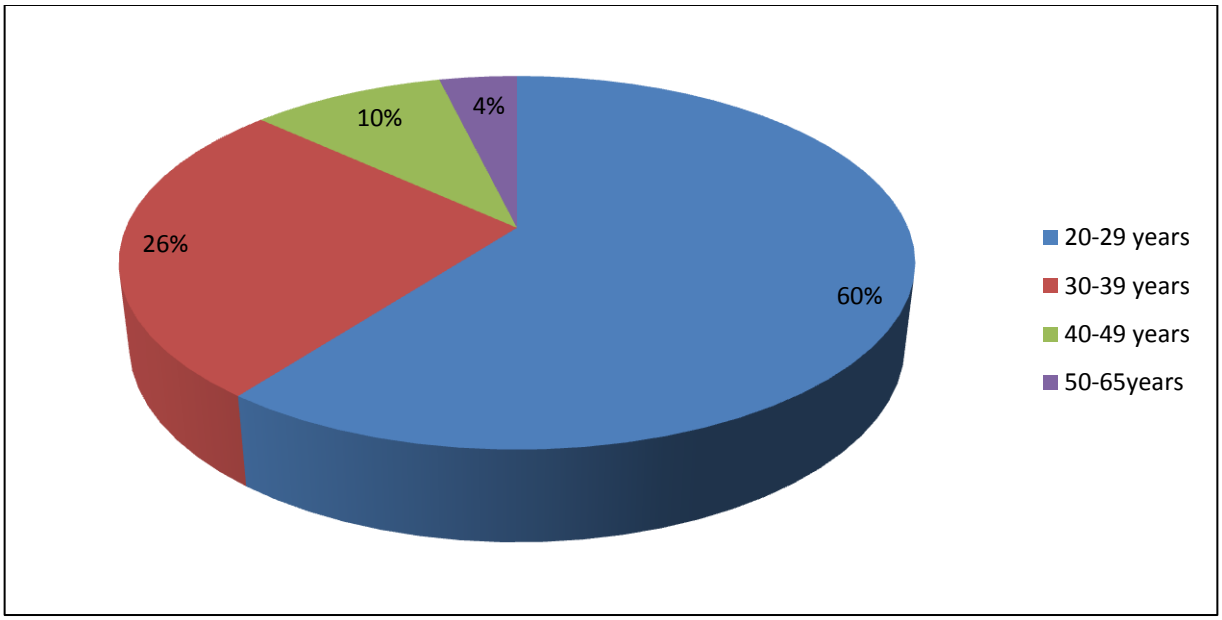


Figure 6.6: Ages of the Total Sample (n=53)

The sample included respondents from seven of the eight universities in South Africa that train occupational therapists. More than half the sample had completed their undergraduate education at Wits (n=29). See Figure 6.7.

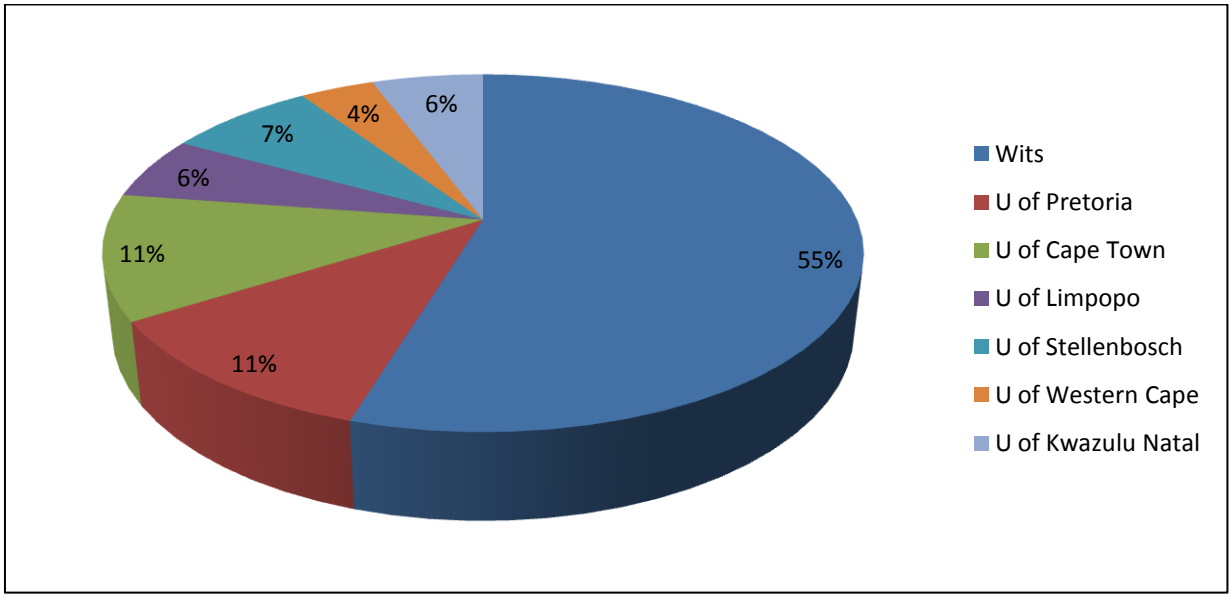


Figure 6.7: Universities at which Respondents Completed their Undergraduate Education (n=53)

Eighteen respondents (33.9%) reported having obtained a postgraduate qualification but the nature of this was not requested.

The years of work experience are listed in Figure 6.8. Sixteen respondents had 10+ years of experience (31.2%) and eight had had less than a year's experience (15%). The mean was 8.33 years of experience, while the mode was 10+ years of experience.

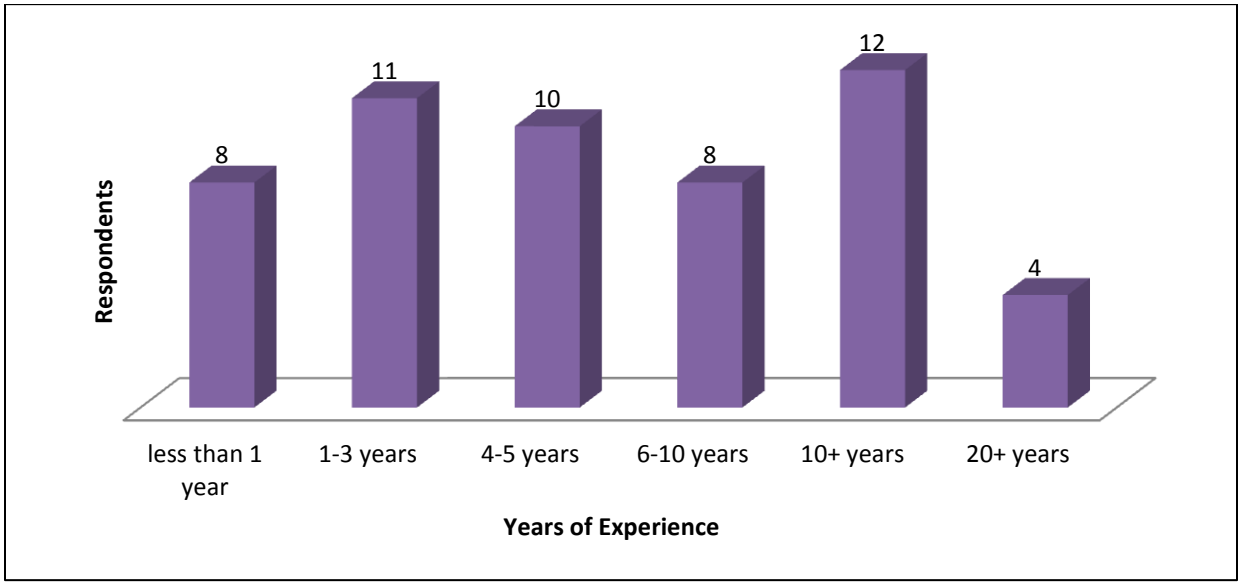


Figure 6.8: Years of Experience of the Respondents (n=53)

Most of the respondents (n=32) worked in the Public Health sector. Seven were employed in the Public Education system in LESN Schools, six worked in private practice and one respondent worked for a Non-Profit Organisation. The remaining five respondents were employed by Wits University.

Two respondents did not record the nature of the post in which they were employed. Figure 6.9 shows the distribution of the sample (n=51) with respect to posts. Posts in Figure 6.9 are named according to the OSD introduced in 2012 [372]. Three of the private occupational therapists were also employed sessionally by Wits as OT-CE tutors.

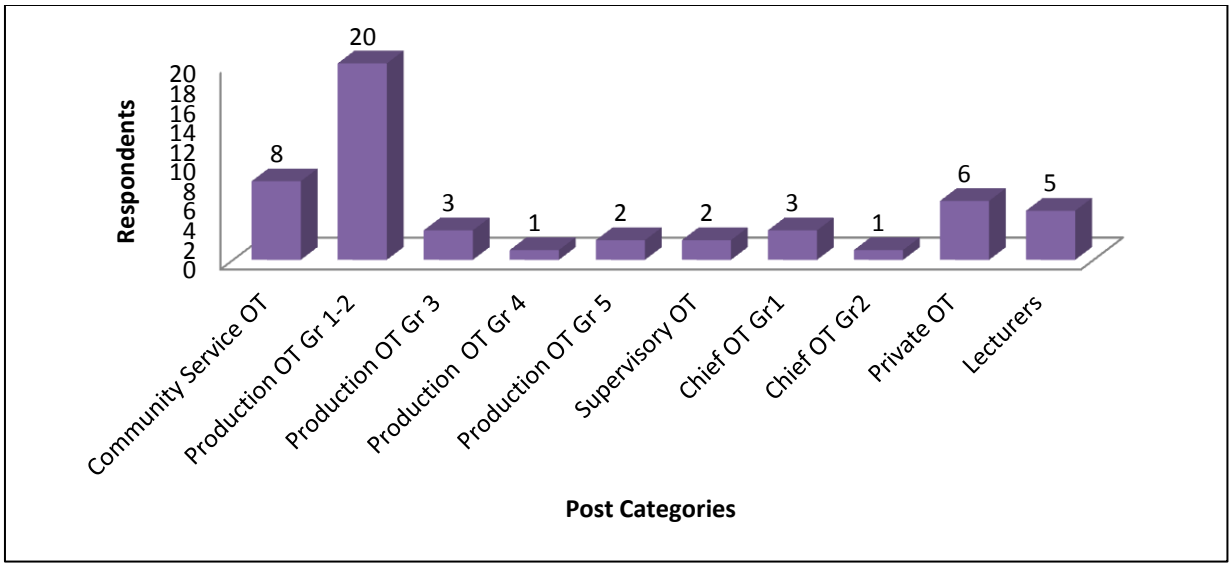


Figure 6.9: Post Categories in which the Respondents were Employed (n=51)

Forty of the respondents reported working in a single field of practice (75.5%), ten in two fields (18.9%), two in 3 fields (3.8%) and one in four (1.8%). See Figure 6.10 for the detail.

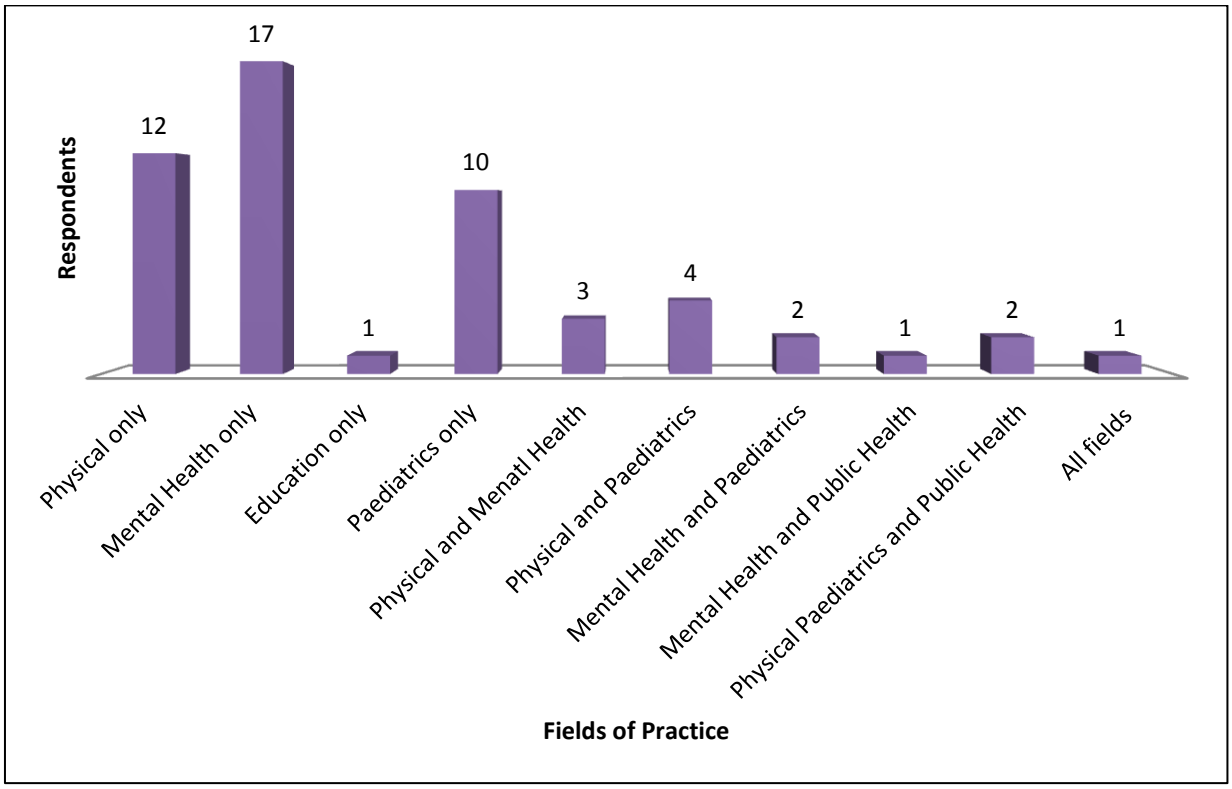


Figure 6.10: Fields of Practice of the Respondents (n=53)

Respondents were asked to record the number of OTSs they had been responsible for in 2012 and 2013. The total numbers for 2012 and 2013 were 436 and 447 respectively. These numbers are inflated by the five university staff that collectively supervised 229 and 197 in the two years. In 2012 fifteen of the respondents did not supervise, resulting in 33 respondents supervising 207 OTSs, an average of 6-7 each. In 2013 ten respondents did not supervise any students and the average was six OTSs per respondent. Respondents who had no students in 2013 had been responsible for students in 2012.

Respondents were asked to rate their perception of their expertise of clinical education using the following: novice (n=14), advanced beginner (n=9), competent (n=20), proficient (n=4) or expert (n=3). This rating can be seen in Figure 6.11.

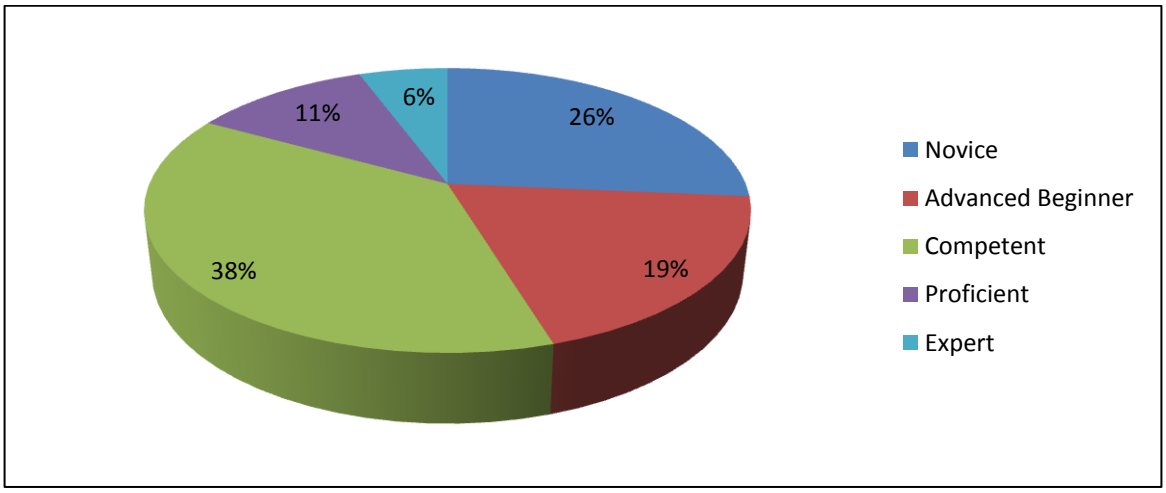


Figure 6.11: Respondents Perception of their Expertise in Clinical Education (n=53)

As the number of respondents in each group was small the five groups were collapsed into two: experienced group (n=29) which was made up of the competent, proficient and expert groups, while the inexperienced group (n=24) was made up of the advanced beginner and novice groups.

Thirty-eight (71.6%) respondents reported that they had attended one or more of the clinicians meetings run by the university to prepare for the forthcoming clinical education blocks. Twenty respondents (37.7%) reported that they had read literature pertaining to

clinical education, and eight (15%) had attended a journal club where clinical education was the focus of discussion. Only five respondents (9.4%) had attended a course related to clinical education, but seventeen respondents (32%) had attended OT-related courses that could enhance clinical education of students.

6.2.6.2 Similarities and differences between the experienced and inexperienced groups of respondents: Knowledge, Skill and Attitude

Although the data were analysed for the total sample as well as the two OT-CE groups (the experienced and inexperienced) only the data for the two groups will be presented in this chapter.

Knowledge of clinical education

The results of the frequency of ratings on the 56 knowledge variables by both the experienced and inexperienced groups of OT-CEs are recorded in Table 6.2 below. In all cases df=1.

Table 6.2: Rating on Knowledge Variables by the Experienced and Inexperienced OT-CE Groups

Knowledge Variables	Experienced OT-CEs n=29	Inexperienced OT-CEs n=24	p value for differences in frequency between groups
	Adequate Knowledge	Adequate Knowledge	
HPCSA Minimum standards of training of occupational therapy students	65.56% (n=19)	37.5% (n=9)	0.04*
Curriculum of Wits BSc OT theoretical curriculum	82.74% (n=24)	69.55% (n=16)	0.18
Clinical curriculum	93.32% (n=28)	65.21 (n=15)	0.00*
Exit level outcomes for the Wits BSc OT course	82.74% (n=24)	57.08% (n=12)	0.01*
Wits Educational philosophy that supports the curriculum	56.66% (n=17)	47.82% (n=11)	0.35
Wits Educational approach, strategy, models and theories used	86.66% (n=26)	82.6% (n=19)	0.44
Principles of Problem Based Learning (PBL)	89.99% (n=27)	95.64% (n=23)	0.907
How to teach using PBL in the clinical setting	86.66% (n=26)	62.49% (n=15)	0.02*
How students learn	89.99% (n=27)	70.83% (n=17)	0.06

Knowledge Variables	Experienced OT-CEs n=29 Adequate Knowledge	Inexperienced OT-CEs n=24 Adequate Knowledge	p value for differences in frequency between groups
Different learning styles	83.33% (n=25)	62.49% (n=15)	0.05
How to accommodate different learning styles in clinical education	73.33% (n=22)	87.49% (n=21)	0.28
Responsibilities of the following within clinical education*:* *Student*	83.33% (n=25)	79.16% (n=19)	0.05*
University educators	83.33% (n=25)	60.85% (n=14)	0.03*
Clinical educators	83.33% (n=25)	60.85% (n=14)	0.03*
Relief clinical educators	48.27% (n=14)	25.99% (n=6)	0.08
Placement managers	58.61% (n=17)	25.99% (n=6)	0.14
Contribution of clients to the clinical education process	81.47% (n=22)	77.26% (n=17)	0.67
Responsibilities attached to the roles of the clinical educator: *Manager*	69.99% (n=21)	37.5% (n=9)	0.00*
Administrator	80% (n=24)	33.33% (n=8)	0.00*
Role model	86.66% (n=26)	62.49% (n=15)	0.02*
Teacher	86.66% (n=26)	62.49% (n=15)	0.02*
Consultant	76.66% (n=23)	54.16% (n=13)	0.05*
Evaluator	86.66% (n=26)	54.16% (n=13)	0.00*
Models of clinical education	36.66% (n=16)	33.33% (n=8)	0.73
Models of professional development of students	46.66% (n=21)	21.73% (n=5)	0.03*
Clinical education process	53.33% (n=16)	29.16% (n=7)	0.06
Development of a professional identity in students	69.96% (n=21)	41.66% (n=10)	0.02*
Development of clinical reasoning in students	83.32% (n=25)	70.83% (n=17)	0.19
Clinical education contracts with students	39.99% (n=12)	20.83% (n=5)	0.11
Clinical education relationship with students	82.74% (n=24)	62.5% (n=15)	0.09
Power factors in the clinical education relationship	44.82% (n=13)	33.32% (n=8)	0.39
Formative and summative evaluations	72.4% (n=21)	43.47% (n=10)	0.02*
Giving students constructive feedback to facilitate learning	93.09% (n=27)	78.25% (n=18)	0.15

Knowledge Variables	Experienced OT-CEs n=29 Adequate Knowledge	Inexperienced OT-CEs n=24 Adequate Knowledge	p value for differences in frequency between groups
Completing the student evaluation form	92.85% (n=26)	70.83% (n=17)	0.2
Educational purpose of: *Case report*	100% n=29)	91.66% (n=22)	0.58
Case presentations	99.54% (n=28)	91.66% (n=22)	0.44
Treatment demonstrations	100% (n=29)	91.66% (n=22)	0.11
Block of Clinical education	96.54% (n=28)	91.66% (n=22)	0.44
Facilitation styles to encourage and motivate students	86.2% (n=25)	41.66% (n=10)	0.40
Factors which influence the nature and quality of clinical education	72.4% (n=21)	41.66% (n=10)	0.02*
Factors/behaviours that identify the: *At risk student*	79.3% (n=23)	45.82% (n=11)	0.01*
Failing student	86.2% (n=25)	54.16% (n=13)	0.01*
Excellent student	85.18% (n=23)	65.21% (n=15)	0.17
Factors/behaviours that identify students with different: *Levels of knowledge*	85.7% (n=24)	66.66 (n=16)	0.17
Levels of motivation	85.7% (n=24)	66.66% (1nn=6)	0.17
Levels of ability	85% (n=24)	66.66% (n=16)	0.17
Factors/behaviours that identify students that have: a *Learning disability*	71.42% (n=20)	43.47% (n=10)	0.04*
Illness which compromises learning	75.86% (n=22)	33.33% (n=8)	0.00*
Personal crises which compromises learning	79.3% (n=23)	41.66% (n=10)	0.00*
Poor coping skills	89.64% (n=26)	41.66% (n=10)	0.00*
Difficult / challenging behaviour	86.19% (n=25)	49.99% (n=12)	0.00*
How to be a good role model	93.09% (n=27)	79.16% (n=19)	0.22
Principles of managing workload	93.09% (n=27)	75% (n=18)	0.12
How to assist students to translate their theory into practice	93.1% (n=27)	58.32% (n=14)	0.00*
Burnout /Compassion fatigue	82.75% (n=24)	62.49% (n=15)	0.04*
Ethical and legal aspects of clinical education	72.4% (n=21)	45.83% (n=11)	0.04*

Significance p≤ 0.05 * p≤ 0.005** p≤ 0.0005***

As can be seen from Table 6.2 the experienced OT-CEs rated their knowledge on 54 of the 56 knowledge variables as adequate more frequently than participants in the inexperienced group, with the difference in frequency being significant ($p<0.05$) on 28 of the 54 variables. The inexperienced participants rated their knowledge higher on only two variables but the differences were not statistically significant.

The differences in frequencies between the two groups ranged from 4.06 to 47.98%.

The Chi-square demonstrated that overall there was a significant difference between the experienced and the inexperienced OT-CE groups on the knowledge variables with $p=0.0000$.

Skill in clinical education

Table 6.3: Rating on Skill Variables by the Experienced and Inexperienced OT-CEs Groups

Skills Variables	Experienced OT-CEs n=29	Inexperienced OT-CEs n=24	p value for differences in frequency between groups
	Adequate Skill	Adequate Skill	
Using PBL in the clinical setting	74.2% (n-22)	45.83% (n=11)	0.02*
Facilitating students learning	87.1% (n=25)	58.33% (n=14)	0.11
Assessing and accommodating to students' learning styles	80.64% (n=23)	45.83% (n=11)	0.01*
Accommodate different learning styles when teaching	80.64% (n=23)	37.5% (n=9)	0.00*
Identifying clients for student and obtaining their consent	93.55% (n=27)	79.17% (n=19)	0.22
Identifying educational opportunities and activities for students' learning	93.54% (n=27)	66.67% (n=16)	0.03*
Collaborating with university educators	83.87% (n=24)	58.33% (n=14)	0.04*
Learning from, giving and gaining support from other clinical educators	74.19% (n=22)	66.67% (n=16)	0.45
Briefing relief clinical educators	64.52% (n=18)	33.34% (n=8)	0.03*
Collaborating with placement senior /OT managers to promote clinical education	80.64% (n=23)	50% (n=12)	0.02*
Executing the roles of the clinical educator: *Managing the student's learning experience*	87.1% (n=25)	45.83% (n=11)	0.04*
Administration of clinical education	87.1% (n=25)	45.83% (n=11)	0.00*

Skills Variables	Experienced OT-CEs n=29	Inexperienced OT-CEs n=24	p value for differences in frequency between groups
	Adequate Skill	Adequate Skill	
Role-modelling professional behaviours and skills	90.33% (n=26)	70.84% (n=17)	0.15
Teaching and promoting self-directed learning in students	87.1% (n=25)	58.33% (n=14)	0.03*
Consulting with respect to clinical education	83.87% (n=24)	41.66% (n=10)	0.42
Evaluator	69.2% (n=20)	58.33% (n=14)	0.42
Using the models of clinical education	54.84% (n=16)	29.16% (n=7)	0.05*
Identifying and facilitating the different stages of professional development of students in clinical education	58.06% (n=17)	29.16% (n=7)	0.03*
Facilitating the clinical education process	70.97% (n=21)	54.17% (n=13)	0.16
Facilitating the development of a professional identity in students	70.97% (n=21)	50% (n=12)	0.09
Developing clinical reasoning in students	80.95% (n=23)	62.5% (n=15)	0.17
Developing and implementing clinical education contracts	58.06% (n=17)	37.5% (n=9)	0.12
Developing and maintaining a clinical education relationship	74.2% (n=22)	45.84% (n=11)	0.02*
Managing the power factors in the clinical education relationship	70.97% (n=21)	37.5% (n=9)	0.01*
Observing students for formative and summative evaluations	83.87% (n=24)	58.33% (n=14)	0.04*
Giving students constructive feedback to facilitate learning	90.32% (n=26)	64.84% (n=16)	0.07
Completing the student evaluation form to facilitate positive learning experiences	80.65% (n=23)	62.5% (n=15)	0.17
Evaluating and allocating marks to: *Case reports*	80.65% (n=23)	66.66% (n=16)	0.29
Case presentations	77.42% (n=22)	62.5% (n=15)	0.29
Treatment demonstrations	87.1% (n=25)	62.5% (n=15)	0.04*
Block of Clinical education	83.87% (n=24)	62.5% (n=15)	0.09
Using different facilitation styles to encourage and motivate students	70.97% (n=21)	37.45% (n=9)	0.01*
Identifying and managing factors which influence the nature and quality of clinical education	64.51% (n=18)	25% (n=6)	0.00*
Coping with the: *At risk student*	74.2% (n=22)	41.67% (n=10)	0.01*
Failing student	74.19% (n=22)	29.16% (n=7)	0.00*
Excellent student	80.64% (n=23)	62.5% (n=15)	0.17

Skills Variables	Experienced OT-CEs n=29	Inexperienced OT-CEs n=24	p value for differences in frequency between groups
	Adequate Skill	Adequate Skill	
Coping with students with different: *Levels of knowledge*	80.65% (n=23)	58.33% (n=14)	0.9
Levels of motivation	77.42% (n=22)	45.83% (n=11)	0.02*
Levels of ability	80.65% (n=23)	58.33% (n=14)	0.09
Coping with students that have: *Learning disability*	74.19% (n=22)	37.5% (n=9)	0.00*
Illness	74.19% (n=22)	45.83% (n=11)	0.02*
Personal crises	87.1% (n=25)	41.66% (n=10)	0.00*
Poor coping skills	83.87% (n=24)	37.49% (n=9)	0.00*
Difficult/ challenging behaviour	80.65% (n=23)	29.16% (n=7)	0.00*
Managing your own workload and clinical education	87.1% (n=25)	70.84% (n=17)	0.16
Preventing burnout	87.1% (n=25)	66.66% (n=16)	0.11
Dealing with ethical and legal issues	80.64% (n=23)	70.84% (n=17)	0.47

Significance p≤ 0.05 * p≤ 0.005** p≤ 0.0005***

As can be seen from Table 6.3 the experienced OT-CE group rated their perceived skill higher on all 47 skill variables with the difference being significant in 26 of the 47 variables with $p<0.05$. The differences in percentages between the two groups ranged from 7.52 to 51.49%.

Again the Chi-square demonstrated that there was an overall significant difference between the experienced and the inexperienced OT-CE groups on the skills variables with $p=0.0000$.

Attitude to clinical education

Only 51 respondents completed this section of the questionnaire. Five respondents were lecturers while 46 were clinicians. The ratio of experienced clinicians to inexperienced was 29:22.

There was a slight difference between the responses of the experienced and inexperienced OT-CEs, but overall there was no significant difference between the two groups.

Table 6.4: Attitude Responses of the Experienced and Inexperienced Groups of OT-CEs (n=51)

Questions	Percentage of experienced OT-CEs that responded yes [n=29]	Percentage of inexperienced OT-CEs that responded yes [n=22]	p value for differences in frequency between groups
Want to teach OTSs so they have good clinical skills	90.6%	100%	0.25
Professional responsibility	93.8%	91.3%	1.00
Distrust education system and want to ensure students have the right skills	15.6%	13.0%	1.00
Job expectation but do not really want to	43.8%	52.2%	0.58
Work in an academic hospital expected part of job	9.4%	8.7%	1.00
To keep up to date	78.1%	91.3%	0.44
Identify and recruit future staff	31.3%	39.2%	0.77

Significance p≤ 0.05 * p≤ 0.005** p≤ 0.0005***

As can be seen from Table 6.4 the differences between the two OT-CE groups were the smallest in this section and the differences in the frequency were not significant on any of the seven variables. Over 90% of the respondents indicated that clinical education is a professional responsibility (91.3 and 93.8%) and they wanted to teach students to ensure that OTSs had good clinical skills (90.6 and 100%). Keeping up to date seems to be an important motivator to be involved in clinical education. Concerning is that close to half the respondents find this to be a job expectation in which they do not really want to participate (43.8 and 52.2%). The differences between the experienced and inexperienced groups ranged from 13.2 to 2.6%.

Very few respondents answered the open ended questions and the little information included added nothing more to these results.

The results of Part 3 of the questionnaire will be reported in Chapter 7.

Determining the skill-set gap

The aim of this section of the study was to establish if there was a gap in the knowledge, skills and values about clinical education held by the OT-CEs responsible for the clinical education of the OTSs. To determine if a gap existed the sample of experienced and inexperienced group of OT-CEs rated their knowledge, skill and attitudes against the listed variables in the OT-CE skill-set on a 4 point ordinal scale were compared. In an ideal world it would be hoped that all experienced OT-CEs would have close to excellent ratings on the 56 knowledge and 47 variables listed on the OT-CE skill-set (see Table 6.1).

Table 6.2 indicated that there was a significant overall frequency difference between the experienced and inexperienced groups in the manner in which they rated their knowledge as adequate or inadequate on the 53 knowledge variables. Figure 6.12 shows the frequency distribution of ratings of adequate knowledge across the two groups with the experienced group having a skewed distribution towards the higher percentages and the inexperienced group having an almost normal distribution curve. Figure 6.12 also shows that although the experienced OT-CE participants rated their knowledge as adequate on more variables than the inexperienced group, there were gaps in adequate knowledge within both groups.

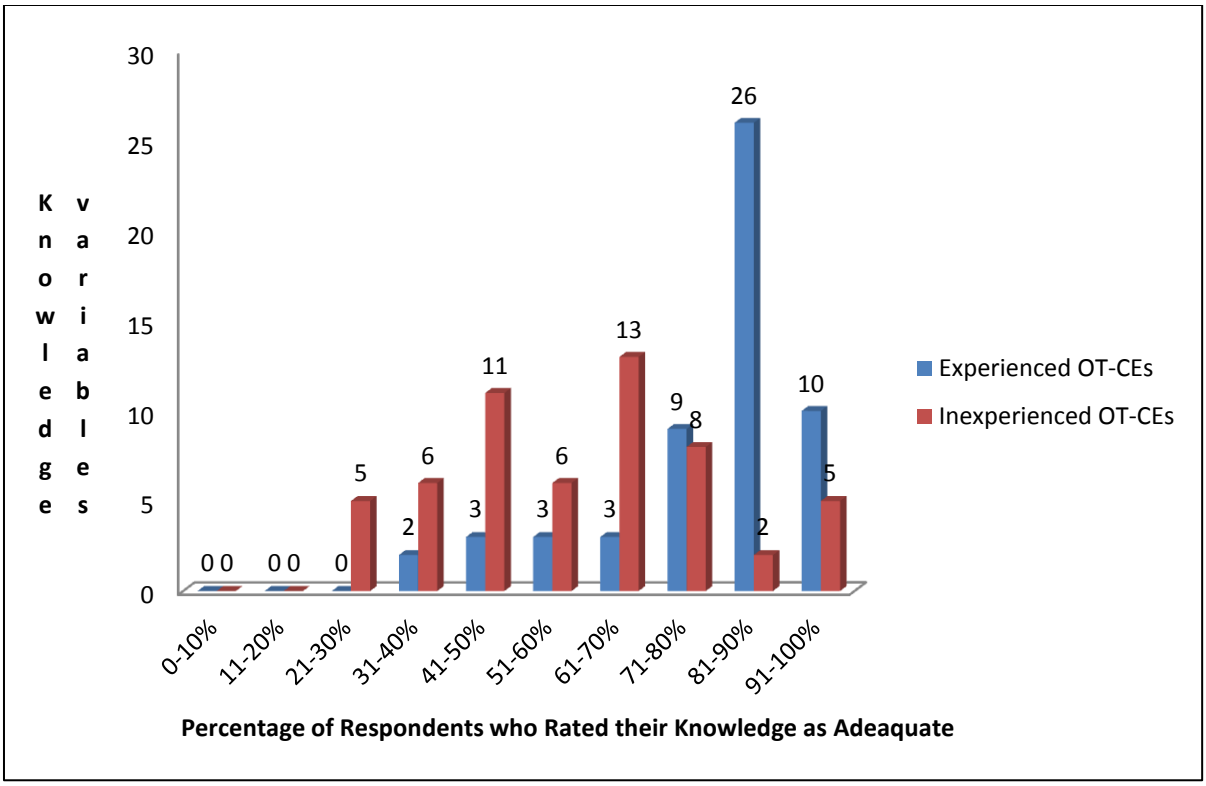


Figure 6.12: Percentages of Respondents who rated their Knowledge as Adequate in the Two Groups OT-CEs

Table 6.3 indicated that there was a significant overall difference between the experienced and inexperienced groups in the manner in which they rated their skill as adequate on the 47 OT-CE skill variables. Figure 6.13 on the other hand describes the distribution of frequencies that respondents rated their skill as adequate on the skill variables between the experienced and inexperienced groups. The pattern is similar to that found on the knowledge variables with the experienced group having a more skewed distribution towards the higher percentages and the inexperienced group having a more normal distribution. As before, both groups showed gaps in skill, albeit with fewer experienced OT-CEs indicating inadequate skill.

Thus a gap was also noted in the skill variables between the experienced and inexperienced groups of OT-CEs.

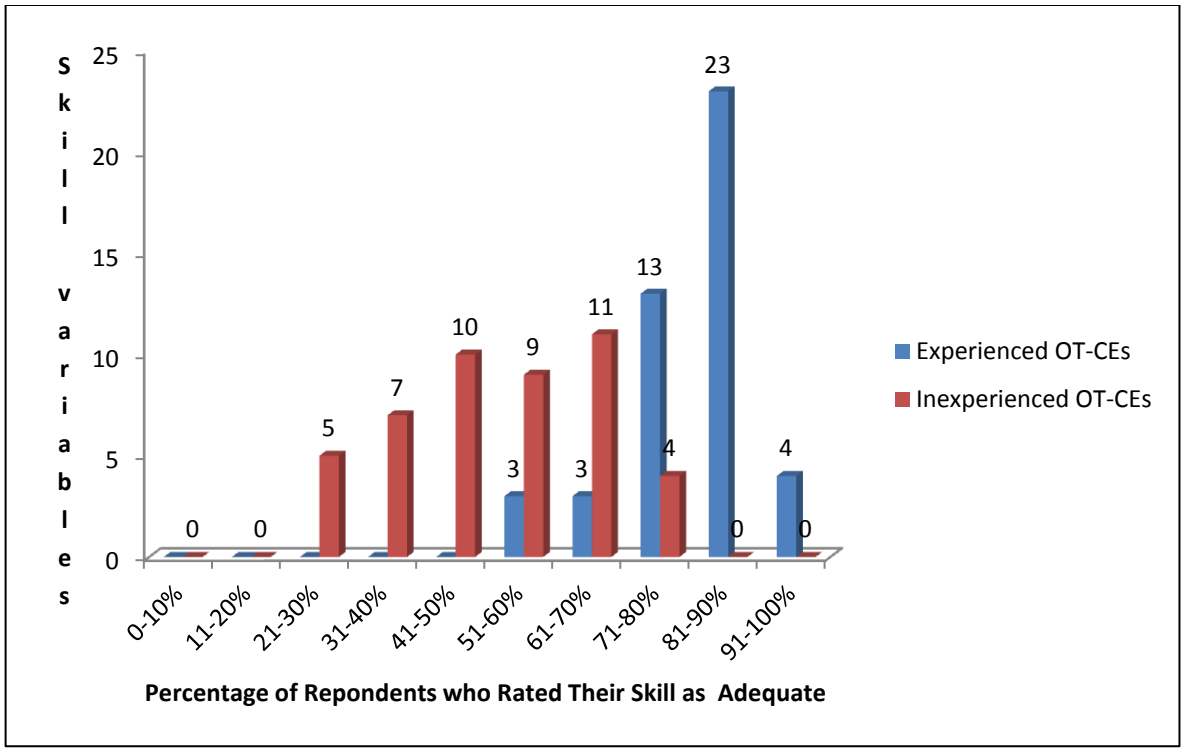


Figure 6.13: Percentages of Respondents who rated their Skill as Adequate in the Two Groups of OT-CEs

Since these results suggested that additional training was needed for both experienced and inexperienced OT-CEs the next step was to consider which knowledge and skill variables were essential for inclusion in the training based on these results, as it was unlikely that time would allow for all aspects to be covered. In order to make this decision a cut-off point was required.

To determine a cut-off point the average percentage of participants in the total sample with inadequate knowledge and skills was calculated. This is recorded in Table 6.5 below. This figure was rounded off and 60% was used as the training cut-off point.

Table 6.5: Percentages of Variables with Inadequate Ratings on Knowledge and Skill

	Average percentage of participants that rated their knowledge (n=56)as inadequate	Average percentage of participants that rated their skill as inadequate
Experienced Group of OT-CEs (n=29)	12.5% (7 out of 56 variables)	6.4% (3 of 47 variables)
Inexperienced Group of OT-CEs (n=24)	48.2% (27 out of 56 variables)	75%(35 of 47 variables)

Thus for a group to be regarded as having adequate knowledge/skill the researcher set a goal of frequency rating of 60% or more. On this basis the experienced group was 'competent' for 93 of 103 combined knowledge and skills variables (signifying a gap of 10) versus the inexperienced group was considered 'competent' for 41 of the combined knowledge and skill variables (signifying a gap of 6).

6.2.7 Discussion

The purpose of this discussion was to examine the results of the OT-CE skill-set survey used to explore how OT-CEs working on the Wits clinical teaching platform rated their knowledge, skill and values of clinical education. While the need for a training programme was recommended by the participants in Part 1 of the study, the objective of Study 5 in Part 2 was to establish if a gap existed in the level of perceived knowledge, skill and attitude related to the clinical education of OTSs relative to the skill-set. Thus the purpose was to determine if the gap identified was sufficient to support the establishing of a specific training programme for OT-CEs either for the inexperienced OT-CEs only or for both groups. This was determined by examining the gap between the results of the experienced and inexperienced groups of OT-CEs against the 60% cut-off that had been set as adequate for the knowledge skill and values variables.

The final decision to develop a specific CE-OT training programme or to explore some other strategy to address the challenges on the Wits clinical teaching platform will be informed by the results of Studies 5 and 6 of Part 2, as well as literature, which will be used to support or explain the results.

This discussion will divided into six broad sections: the representivity of the sample; perceived versus actual knowledge; perceived knowledge and gaps in the knowledge of

clinical education; perceived skill and gaps in the skills related to clinical education; perceived values and gaps in the values relating to education and finally the need for and nature of an OT-CE training programme

6.2.7.1 **The sample**

Since the whole population of OT-CEs working on the Wits teaching platform was specifically targeted in this research the response rate was less than was hoped.

It is acknowledged that purposive sampling may have created sampling bias as those occupational therapists who were reluctant may have been less inclined to complete this questionnaire. However, the overall response rate of 67.9% (n=61) for a mailed questionnaire was considered adequate although only 53 questionnaires were analysed: 48 from on-site OT-CE and five from university educators [184]. The wave analysis of responses of the five university educators suggested that the non-response rate bias for this group was low [285]. The number of questionnaires returned by the on-site OT-CEs was statistically valid at a 95% confidence level (p=.005) while that of the university CEs was not [295]. The university educator group was not analysed as a separate group as was planned but included in either the experienced or inexperienced OT-CE groups according to how the respondents rated their competence in clinical education.

Although there are no comprehensive statistics related to the demographics of occupational therapists in the province or the country, the demographic of the sample is consistent with the that reported in Chapter 5 and of those who attend the sessions for OT-CEs organized by the university OTD: the respondents were mostly young, with 60% under 29 years of age and very few older therapists, (only 4% over 50 years). This is also consistent with the distribution of respondents in terms of years of clinical experience, with 29 having less than 5 years of experience (54%). This is also consistent with the post distribution with 28 (52.8%) respondents being on posts up until the Production OT (Grade 2) level. Fifty-five percent of the respondents had completed their undergraduate education at Wits, which is probably to be expected as new graduates typically seek employment close to home unless they have bursaries that dictate that they work in other provinces or there are limited job opportunities. Only a small number have a postgraduate qualification (33.3%) although it is important to note that the university educators typically have one or more postgraduate qualifications which may have distorted this number. Most of the respondents were employed in the

Public Health sector which is consistent with where OTSs do most of their Clinical education, and the respondents worked in a range of fields of practice so the perceptions were reflective of a range of different clinical education sites, fields of practice, which was an important consideration in the context of this research.

In light of the above, the responses to the questionnaires can be considered to be representative of the views of on-site OT-CEs on the Wits teaching platform and that the results have sufficient validity to make a considered decision about the needs for future training. Since this research particularly targeted OT-CEs working on the Wits clinical teaching platform, the extent to which the results are generalisable to OT-CEs on the clinical teaching platforms of other universities is uncertain.

Twenty-nine percent of respondents who had less than 5 years of clinical experience rated themselves as competent, proficient or expert OT-CEs, but only 24% of respondents felt they were inexperienced OT-CEs by rating themselves as either novice or advanced beginners. While this may not entirely reflect the state of readiness to undertake clinical education described by Costa and Higgs, this may be explained by the fact that as a result of the human resource constraints, many of these younger therapists are likely to have been responsible for the clinical education of a number of students as reported in Chapter 5 and therefore felt more competent about their OT-CE skills [1, 99].

Perceived versus Actual Knowledge/Skill

Respondents were required to rate their perceived level of knowledge and skill of each variable on a four point ordinal scale, while attitudinal and behavioural variables were rated as either yes or no. A frequency rating of sixty percent of the respondents on any of the variables was regarded as the cut-off point for 'competent knowledge and skill' on all the variables listed.

Thus the ratings recorded by the respondents on the variables of the questionnaire reported perceived/self-reported knowledge/skill, rather than actual/objective knowledge/skill. These have been found to be two independent concepts, where perceived/self-reported knowledge is defined as what one believes/thinks one knows and is able to do, while actual/objective knowledge and skill is defined as what one really knows about a particular phenomenon and how skilled one is in its use [373]. Research

has found that there is often a discrepancy between these two types of assessments, and that individuals may differ in the degree of discrepancy between these two types of knowledge and skill areas [374]. Both under- and over-estimation of perceived knowledge/skill have been reported [374]. Level of education has been found to influence actual/objective and perceived/self-reported knowledge in consumer research, and acceptance of new ideas is more positively associated with perceived/self-reported knowledge than actual/objective knowledge [373]. Experts have also been reported to be better able to monitor and regulate their perceived knowledge/skill than those who are inexperienced who have been described as 'novice like' in their thinking [374 p.327] and are thus less able to distinguish what they think they know from what they actually know [374]. While this may be considered a limitation of this study, practical evaluation of the OT-CEs' actual knowledge and skills in a time efficient and unbiased manner was not possible and no scientifically proven tool was available to do this.

Chiaburu, Haung, Hutchins and Gardner caution that self-reported knowledge has some limitations in research related to the development of education programmes and the evaluation of knowledge gained from such programmes [375]. In spite of the possibility that there may be differences between the respondents' perceived and actual knowledge, the results have differentiated the variables that most respondents believe they know and are able to do, from those that only some respondents perceive they do and do not know and can and cannot do, and those variables which most respondents perceived they do not know and cannot do. The results also demonstrated a significant difference between what the experienced and inexperienced respondents perceived they know/do not know and can do/cannot do.

6.2.7.2 **Clinical Education Knowledge**

Adequate knowledge of clinical education

Of the 54 variables the total sample rated their knowledge on 28 variables (51.8%) as competent, consistent with the overall frequency rating of 60% and more.

Most respondents in both the experienced and inexperienced groups rated their knowledge high on the 'Educational purpose of case reports' (100% and 91.7% respectively), 'Case presentations' (99.5% and 91.7% respectively), 'Treatment demonstrations' (100% and 91.7% respectively) 'The block of Clinical education' (96.5%

and 91.7% respectively) and 'Completing the clinical evaluation form' (92.9% and 70.8% respectively). The high rating of the case report was a surprise as the educational use of the case report is frequently disputed. Occupational therapy clinical educators continuously criticise these case reports as an educational tool, as they are time consuming for the OTSs to prepare and for the OT-CEs to evaluate. This fact was raised in the focus groups and also by the OT clinical managers. The question as to why students cannot just write clinical reports as the clinical staff do is contentious. Since the adequacy and quality of clinical reports of qualified occupational therapists is an unresolved debate, the OTSs continue to use the university prescribed format as it embeds an educational process to guide clinical reasoning, rather than just a reporting process. None of the other ratings were surprising as they all refer to the educational activities which all OTSs routinely have to complete and which collectively contribute to the well-defined and documented student formative and summative evaluation process.

Both groups of respondents rated that they had adequate knowledge of the 'Wits theoretical and clinical curriculum' (82.7% and 93.3% for the experienced groups for these two variables and 69.6% and 65.2% for the inexperienced group). While the five academic staff in the sample may have inflated the figures, it is assumed that the knowledge of both these curricula by the respondents is superficial. Even if OT-CEs had completed their degree at this university it is unlikely that they will have an in depth knowledge of the curricula and the educational principles that support them. This assumption is based on the department's experience that it takes new staff at least two years to understand the curricular roadmap as well as the vertical and horizontal articulations within these curricula, especially as the clinical curriculum is embedded in the theoretical curriculum.

Respondents in both the experienced and inexperienced groups regarded as adequate their knowledge of 'Giving students' constructive feedback to facilitate learning' (93.1% and 78.3% respectively). This is an interesting finding because this is the OTSs' most common complaint: feedback is not balanced; it focuses on what is wrong and not how to make it right, therefore it is not always helpful in the clinical learning process. Students also report a lack of congruence between the allocation of marks/grades and feedback comments. While this may be true it is important to acknowledge that students

generally find critical yet constructive feedback very threatening, and have difficulty hearing what is being said, which is a common educational problem [376].

Both groups of respondents, experienced and inexperienced OT-CEs, also regarded as adequate their 'Knowledge of forming a clinical education relationship with the OTSs' (82.7% and 62.5% respectively). The OT-CE-OTS relationship has been highlighted as a critical aspect of clinical education and central to the success of the clinical education process [92]. In the focus groups this relationship was highlighted as a particular problem by the student participants who described not being able to form a positive OT-CE-OTS relationship as a barrier to their clinical learning.

Knowledge of how to be 'A good role model' was also rated frequently by both the experienced and inexperienced groups of OT-CEs (93.1 and 79.2% respectively). This result is in contrast with role-modelling being raised as a specific concern in the focus groups by all three stakeholder groups and seven of the eight university participants. It can be assumed that as qualified occupational therapists they all perceived that they know what occupational therapy is, how it should be practised and how occupational therapists should behave professionally. Being a good role model has been described as essential to the clinical learning of OTSs [113, 124, 321]. While many of the issues raised in the focus groups related to unprofessional behaviour, some of the criticism was about the way the profession was being practised. It is probable that some of the concerns are related to the gap between theory practise, as well as the professional paradigm shift from the medical based orientation to a more occupation-based orientation which was described in Chapter 2. This is one of the tensions in clinical education and results in what is taught in the classroom not being apparent in practice. This is not unique to South Africa, and the literature indicates that occupational therapists working in a medical context often struggle with the provision of occupation–based services in the context of medically orientated health facilities [244].

Interestingly the respondents in the inexperienced group rated as adequate their 'Knowledge of how to accommodate different learning styles in clinical education' more frequently than that of the experienced group (87.5% and 73.3% respectively). Understanding how OTSs learn clinically and then teaching in a manner that matches the way a student learns best is challenging as it demands versatile teaching

approaches which differ from student-to-student. Research on social work clinical educators found that even if they are able to identify the learning styles of their students they find it difficult to adapt to this [128]. Some authors advocate that all learning styles should be used in sequence to facilitate learning in all aspects of a curriculum for health professionals [377].

Respondents in both groups also frequently rated their knowledge of the 'Responsibilities of the teaching role' as being adequate (86.7% and 62.5% by the experienced and inexperienced OT-CEs respectively). This is consistent with the general assumption of occupational therapists that if you can teach a client in a therapy situation then you can teach an OTS clinical competency. This assumption is widely disputed in the literature, and professional training does not prepare one to teach [60, 99].

Most respondents in both the experienced and inexperienced groups rated as adequate their knowledge of 'The contribution of clients in the clinical education process' adequate (81.5% and 77.2% respectively). This reflects the understanding that working with clients provides the learning opportunity that students require to transition their theory into practise. However, it perhaps does not include the extended role of the client in the evaluation of the student, as raised in the focus groups, nor the common practice of giving a student another client if a client is unhappy or dissatisfied with the student and the therapy the student provides. Students are all taught that clients should give consent for the therapy to be provided by a student and clients should be informed that they are being treated by students who are working under supervision/guidance. Whether gaining this consent is responsibility of the OTS or the OT-CE is not clear. There is an assumption that in all Public Health sector academic hospitals being treated by students is understood and accepted by clients and therefore consent is not sought. However in some private sector institutions qualified occupational therapists provide occupational therapy interventions that clients are billed for and students provide additional services which are not charged for. In some clinical education sites clients request to be allocated to a student as they get regular and undivided attention, but in other clinical education sites clients do not wish students to be involved in their treatment as they believe students are not clinical competent.

Many respondents rated that they had adequate knowledge of some key education issues: 'Wits educational approach, strategy, models and theories used in the occupational therapy curriculum' (with a frequency of 86.7% and 82.6% in the experienced and inexperienced groups respectively); 'The principles of PBL' (with a frequency of 90 and 95.6% in the experienced and inexperienced groups respectively); 'How to use PBL in the clinical context' (with a frequency of 86.7 and 62.5%); 'How students learn' (with a frequency of 90 versus 70.8%) and 'Learning styles' (with a frequency of 83.3% versus 62.5%). The fact that so many OT-CEs rated as adequate their knowledge of the educational approach, strategy, models and theories which underpin the curriculum was a surprise. These are educational principles on which the curriculum is designed are seldom articulated to OT-CEs. While this information may be common knowledge for the five university staff who were included in the sample, this information was shared with OT-CEs in a single presentation in 2013 at a rural clinical educators meeting where the numbers of attendees is low. It is probable that the respondents interpreted the theories referred to in this variable as the occupational therapy theories that are taught within the curriculum from the first year and are used to frame some of the occupational therapy teaching. 'Knowledge of the principles of PBL' was scored as adequate by most respondents, but with the inexperienced OT-CEs rating slightly higher than that of the experienced (95.6 versus 90% respectively). This result is contrary to the findings of the qualitative study where concerns were raised that the PBL process and principles were rarely used in the clinical context to facilitate clinical learning and that OT-CEs did not know how to use the PBL process to facilitate clinical learning. While much has been written on knowledge development using PBL not much has been written on its usefulness in the development of clinical skills. Hood and Chapman describe a tutorial programme used to help medical students learn the clinical skills associated with transitioning psychiatric theory into practice which may be useful for OT-CEs [378].

Many respondents in both the experienced and inexperienced groups rated their knowledge as adequate in 'Identifying excellent students (with a frequency of 85.2% and 65.2% respectively), as well as Students with differing knowledge (with a frequency of 85.7% and 66.7% respectively), motivation (with a frequency of 85.7% and 66.7% respectively) and ability' (with a frequency of 85% and 66.7% respectively). Generally, the experienced OT-CEs had higher ratings (85% and above) than the inexperienced

CEs, whose scores varied between 65% and 66%. These ratings were also not unexpected as these aspects are easily identifiable in the students' behaviour and also the way they ask and answer questions about clients.

Knowledge on 'Developing clinical reasoning in a student' was also regarded as adequate by many respondents in both the experienced and inexperienced groups. Probably a reflection of the high prominence that clinical reasoning has in all undergraduate occupational therapy programmes [7]. Teaching of clinical reasoning was raised in the focus groups linked to the inexperience of OT-CEs and the question of how you teach a student to reason clinically when you yourself are not sure of what you are doing was a prominent theme. In addition, the literature suggests that teaching clinical reasoning may be more difficult than is assumed as it is usually an unconscious cognitive process of clinical judgements that needs to be made overt for students [77]. On the other hand, clinical reasoning is one of the skills that is reported to take a longer time to develop than other professional skills [46].

Respondents in both groups rated their Knowledge of the principles of managing workload and Preventing burnout as adequate (with a frequency of 93.1% and 82.8% for the experienced group and with a frequency of 75% and 62.5% for the inexperienced group). While OT-CEs may know the principles of how to manage their workload they are continuously reporting that they are overworked and in the focus groups reported OT-CEs being burnt out, although the burn out rate of occupational therapists relative to other professionals is reported to be quite low [334, 335].

<u>Inadequate knowledge of clinical education</u>

Eight of the 56 knowledge variables were ranked as inadequate (below the 60% cut-off for respondents) in both the experienced and inexperienced groups (14.3%). On all eight variables, the inexperienced OT-CEs rated their perceived knowledge lower than that of the experienced OT-CEs. The inexperienced respondents rated an additional 20 variables as inadequate (see Table 6.2).

The results of three variables were of concern: The 'Responsibilities of the placement manager' (with a frequency of 58.6% and 25% for the experienced and inexperienced group respectively), the 'Use of a relief OT-CE' (with a frequency of 48.3% and 26% for

the experienced and inexperienced group respectively) and 'Managing the power in the CE-OTS relationship' (with a frequency of 44.8% versus 33.3% for the experienced and inexperienced group respectively). The first relates to the oversight and support of the placement manager for involvement in clinical education and how this is translated into the educational ethos of the site, responsibilities and resources. This has been described as being essential to the success of clinical education in a specific site [100]. This rating probably reflects the lack of involvement of site and departmental management in the clinical education of OTSs as reported in Chapter 5, and therefore reflects respondents not having adequate knowledge of what their responsibilities might be, and support and guidance for this role. The second variable related to the use of a relief OT-CE was a surprise as this is common practice where one OT-CE stands in for another due to unavailability of the first. Perhaps the term 'relief OT-CE' was unfamiliar. The use of a relief OT-CEs has its own challenges which demand very good briefing and feedback between the two parties so that the student's clinical education is not interrupted or compromised especially in time pressured blocks. While this eventuality is seldom avoidable, lessons should be learnt from other disciplines like nursing who have coined the idea of a 'skills passport' which is a guidance document for critical professional roles which needs to be adapted by relief or temporary staff [379]. The final variable that most respondents rated inadequate was the 'Power factor in a CE-OT student relationship'. All OTSs are aware of this power and they either consciously or subconsciously moderate their behaviour to attain knowledge, marks and acceptance. This phenomenon was articulated by the student focus group as a key factor to coping in different clinical education sites. It seems unusual that OT-CEs do not realise the power they hold within the CE-OTS relationship and how this may influence their own and OTSs' behaviours.

The fact that a considerable number of respondents in both experienced and inexperienced groups, rated as inadequate their perceived knowledge of the 'Philosophy that supports the Wits occupational therapy curriculum' (with a frequency of 56.7% and 47.8% respectively) probably means that the university department does not make this philosophy explicit enough to the OT-CEs, even though it has been communicated in the OT-CE workshops organised by the university OTD.

The other four variables which had low frequency ratings by both groups of respondents related to either educational concepts or educational practices, and it is perhaps not particularly surprising that many OT-CEs rated their knowledge of these variables as inadequate: 'Models of clinical education' (with a frequency of 36.6% and 33.3% for the experienced and inexperienced groups respectively); 'Models of professional development of OTSs' (with a frequency of 46.6% and 21.7% for the experienced and inexperienced groups respectively) 'The clinical education process' (with a frequency of 53.3%and 29.2% for the experienced and inexperienced groups respectively) and 'Clinical education contracts' (39.9% and 20.8% for the experienced and inexperienced groups respectively).

Differences in clinical education knowledge between the two groups

Except for two of the 56 knowledge variables, the experienced group of respondents rated as adequate their collective perceived knowledge of variables more frequently than the inexperienced group. The Chi-square demonstrated that overall there was a significant difference in the frequency ratings on the knowledge variables between the experienced and inexperienced groups (p=0.0000). The implication is that although the some of the inexperienced group of OT-CEs had some knowledge on each of the variables the experienced group of respondents collectively rated their knowledge higher. This would suggest that with experience, either through years of clinical experience or as a result of being responsible for an increasing number of students, that knowledge of these variables improves. However even the experienced group did not rate their knowledge as optimal except for four of the knowledge variables which were rated as adequate by over 95% of the group. From this it can be concluded that both experienced and inexperienced OT-CEs would benefit from some additional training, but the two groups needed training with different information included.

6.2.7.3 **Clinical education skill**

There were 47 skill variables listed on the questionnaire (see Table 6.3).

Adequate clinical education skill

Both the experienced and inexperienced OT-CE groups rated their perceived skills as adequate (good–excellent) on 14 of the skill variables (29.8%). The ratings of the inexperienced group, as with the knowledge variables, were consistently lower than

those of the experienced respondents, and there were no variables where the inexperienced group rated their skills higher. The experienced group respondents rated their skill as adequate on an additional 30 of the skill variables.

Work by Eraut, Alderton, Cole and Senker suggest that the development of knowledge and skill in the work place may follow a different pattern to that of more formal education. In the workplace tacit knowledge is often used to perform skilled tasks and workers can frequently not articulate the specifics of the knowledge or it source [380]. Many skills may be learnt by habituation without understanding, however in formal education, knowledge usually forms the platform on which skills are learnt and understood. Currently, the development of OT-CE education knowledge and skill can be considered to be 'work place education' where learning can occur through osmosis and exposure, through the experience of doing or a structured person-directed manner [380]. This may explain some of the rating differences between the knowledge and skill variables by the respondents.

Consistent with the perceived knowledge ratings, both the experienced and inexperienced group of respondents frequently rated their perception of skill as adequate for the following 10 skill variables: 'Role-modelling professional behaviours and skills' (90.3% for the experienced respondents and 70.8% for the inexperienced); 'Developing clinical reasoning in students' (with a frequency of 81% and 62.5% for the experienced and inexperienced groups respectively); 'Giving student constructive criticism' (with a frequency of 90.3% and 64.8% for the experienced and inexperienced groups respectively); 'Completing the evaluation form to facilitate positive learning' (with a frequency of 80.7% and 62.5% for the experienced and inexperienced groups respectively); 'Evaluating and allocating marks to: case reports' (with a frequency of 80.7% and 66.6% for the experienced and inexperienced groups respectively), 'Case presentations' (with a frequency of 77.4% and 62.5% for the experienced and inexperienced groups respectively), 'Treatment demonstration's (with a frequency of 87.1% and 62.5% for the experienced and inexperienced groups respectively), 'To a clinical education block' (with a frequency of 62.5% versus 83.87%); 'Coping with an excellent student' (with a frequency of 80.6% and 62.5% for the experienced and inexperienced groups respectively) and 'Preventing burnout' (with a frequency of 87.1% and 66.7% for the experienced and inexperienced groups respectively). As with number

of the knowledge items many of these variables in spite of their high ratings were considered challenges in the focus groups.

Two skills variables linked to the teacher role of a OT-CE were also frequently rated as adequate for both the experienced and inexperienced groups viz. 'Identifying clients for students and gaining their consent' (with a frequency of 93.6% and 79.1% for the experienced and inexperienced groups respectively) and 'Identifying educational opportunities and activities for student learning' (with a frequency of 93.5% and 66.6% for the experienced and inexperienced groups respectively).

Linked to the knowledge variable role and responsibilities of the OT-CE was the skill variable 'Learning from, giving and gaining support from other OT-CEs'. This skill variable was rated as adequate by many respondents in both the experienced and inexperienced groups (74.1% and 66.7% respectively). Learning from, giving and gaining support from other OT-CEs was an important skill described in the literature for developing OT-CE skills and was described as a function of role-modelling, not only professional skills but the OT-CE skills [206]. This was a concept debated in the focus groups: 'Who were the good role-models for OT-CE; how did one learn to be a good role model; and where was the support for this learning process'. There was a suggestion that poor role-modelling was also learnt in on-site contexts and poor clinical education was perpetuated by these examples. Since this was a feature of all the focus groups and a concern of the majority of the university participants, it is interesting that OT-CEs perceive there is support and learning opportunities from other OT-CEs.

The experienced and the inexperienced groups of respondents also frequently rated their skill on the variable 'Dealing with ethical and legal issues' as adequate (with a frequency of 80.6% and 70.8% for the experienced and inexperienced groups respectively). However, more respondents in the inexperienced group rated the corresponding knowledge variable as inadequate (with a frequency of 45.8%). While it may seem unusual for skills to be rated as good to excellent in the absence of adequate knowledge, it may be that the inexperienced OT-CEs could not articulate the knowledge related to ethical and legal issues related to clinical education, but perceived the skills to be more overt and specifically formulated so they felt more confident in rating the perception of their skill [381]. The formulation of the question was probably also not

precise enough in linking the ethics and legal issues to clinical education and it may have been interpreted as relating to professional issues rather than clinical education.

The skill of 'Managing one's own workload' was linked to skills to 'Prevent burnout'. This had been raised as a challenge in the focus groups where on-site OT-CEs reported feeling burnt-out, as well as in the questionnaire to OT-CEs and OT clinical managers reported OT-CEs being burdened by the additional workload of clinical education, which was reported in Chapter 5. Thus this result contradicts the earlier findings as many of these respondents perceived themselves to be skilled at managing the clinical and clinical education workloads and preventing burnout (experienced group recording 87.1% for both variables and the inexperienced group reporting 70.8% and 66.7% respectively for the two variables).

Inadequate skills related to clinical education

As reported in the results for the experienced group of OT-CEs only three of the 47 skill variables had a frequency rating below the 60% cut-off (6.4%): 'Identifying and facilitating stages of professional development of OTSs in clinical education' (with a frequency of 58.1%); 'Developing and implementing clinical education contracts' (with a frequency of 58.1%); and 'Using the models of clinical education' (with a frequency of 54.8%). The same three variables were included in the 32 skills variables rated by inexperienced respondent group as being inadequate. These three variables were also below the 60% cut off in the clinical education knowledge variables.

While there is less concern over the latter two variables, **t**he former supports the contention from the focus groups that OT-CEs do not understand the educational development of students over the four years of the course or the stratified way in which occupational therapy knowledge and skill are taught. Occupational therapy students continuously complain that OT-CEs do not understand the clinical education block outcomes and requirements, and perceive that students must know and be able to do what OT-CEs can do. This phenomenon has also been described in the literature [125].

While inexperienced OT-CEs are responsible for a considerable number of students, the ratings suggest that the respondents perceive that they do not have sufficient skills with respect to their role as OT-CEs. Ratings of variables consistent with this role include:

‘Managing of the OTSs learning experiences’ (with a frequency of 45.8%); ‘ Administration of clinical education teaching’ (45.8%); ‘Teaching and promotion of self-directed learning in students’ (with a frequency of 58.3%); ‘Role as an evaluator’ (53.8%); ‘Consulting with respect to clinical education’ (with a frequency of 41.7%); ‘Facilitating students learning’ and ‘observing students for formative and summative evaluation’ (both with a frequency of 58.3%); ‘Facilitating the clinical education process’; ‘Facilitating of professional identity’; ‘Using PBL in the clinical education setting’; ‘managing the students learning process’; ‘Assessing and accommodating the students’ learning style when teaching’ and ‘Using different facilitation styles to encourage and motivate students’; (ratings ranging from 58.3% to 37.5%). These results are in keeping with the literature [1, 87, 99, 253].

The OTS participants in the focus groups voiced their particular concerns about OT-CE-OTS relationships. The frequencies of adequate ratings of the two skill variables pertaining to the OT-CE relations were low (below the 60% cut-off) giving some support to this: ‘Developing and maintaining the OT-CE-OTS relationship’ (45.8%) and ‘Managing the power in the OT-CE-OTS relationship’ (37.5%).

The inexperienced group of OT-CEs collectively perceived their skill level to be low (below the 60% cut-off) on the following three variables relating to collaboration with other clinical education stakeholders which have some impact on the extent to which they are able to find support for themselves in this dual aspect of their role: ‘Collaborating with university educators’ (with a frequency of 58.3%); ‘Placement senior/OT managers’ (with a frequency of 50%) and the ‘Briefing of relief OT-CEs’ (with a frequency of 33.3%). This is consistent with the inexperienced OT-CEs feelings of being unsupported raised in the earlier aspects of the study.

While problem or difficult students are the exception rather than the rule, they are challenging to work with no matter how much experience an OT-CE has. While some students demonstrate challenging and difficult behaviours over the 4 years of the course, sometimes difficult and challenging behaviour occurs quite unexpectedly. The reasons for this kind of behaviour are many, some based in the difficulties in the OTS’s personal life and living situation and others of a more academic nature. For the inexperienced group of OT-CEs respondents the adequacy of skills in ‘Dealing with challenging

students' was low (with a frequency of 29.1%), as well as the educational and personal situations that lead to challenging and difficult behaviour such as 'Limited knowledge' (with a frequency of 58.3%); 'Low motivation' (with a frequency of 45.8%); 'Limited ability' (with a frequency of 53.3%); 'Illness' (with a frequency of 45.8%); 'Personal crises' (with a frequency of 37.5%); 'Poor coping skills' (with a frequency of 37.5%). This is a concern as inexperienced OT-CE are ill prepared to deal problems that affect OTSs clinical education which are time consuming, emotionally draining and may have ethical/legal overtones and consequences for success [126, 382].

Differences in clinical education skill between the two groups

The experienced group of OT-CEs collectively rated themselves as having adequate skill (above the 60% cut-off) on 44 of the 47 skill variables. This same group collectively rated their skill level as being inadequate (below the 60% cut off) on only three of the 47 skill variables. However, the inexperienced group collectively rated their perceived skill as adequate on only 14 of the 47 variables, thus their skill level as a group was rated as inadequate on 30 of the 47 skill variables. The chi-square calculation also found a significant difference between the two groups on the basis of these results (p=0.000). The conclusion that can be drawn from these results is that clinical education skills may well be learnt from experience, but what that experience entails is uncertain and both groups may benefit from some additional training and the content for the two groups needed to be different.

6.2.7.4 **Clinical education values**

The literature reports that an effective OT-CE has positive values about clinical education that are rooted in a personal-professional value system [227, 383]. Of the 51 respondents who completed this section of the questionnaire, 94% indicated that they believed that clinical education was a professional responsibility, which is a value that the profession recognises as being important to the growth and sustainability of the profession in the long term. Although slightly more of the experienced participants (91.3%) rated this variable as important, there was very little difference between the experienced and inexperienced group for this variable (91.3%), which was pleasing. It is also important to acknowledge that all occupational therapists would recognise that this is the professionally correct stance to have. However, the focus groups suggested that while this is the right attitude to have, it may not always be evident in the OT-CEs

behaviour when dealing with students in the clinical context. Thus any OT-CE who does not act on the belief that it is their responsibility to help students to learn is a concern, as this will impact on their commitment to and engagement in the clinical education process.

All the inexperienced OT-CEs indicated that they wanted to teach to ensure that OTSs have good clinical skills which are essential for safe, effective and ethical practice. Although fewer of the experienced OT-CE respondents rated this highly (with a frequency of 90.6%), good clinical skills are reported in the literature to be of great importance in clinical settings [29, 383]. This high rating should also be considered in the light of some OT-CEs (with a frequency of 15.6% of the experienced and 13% inexperienced participants) reporting distrust of the information being taught to OTSs in the classroom, and that they needed to ensure that OTSs are taught the right skills for the work context. This has been identified as a motivator to be involved in OT-CE in other countries [315]. It may also reflect the tension resulting from the professional paradigm shift from the medical model to a more occupation-based approach that some OT-CEs find difficult to adopt in some clinical settings. This finding was also strongly echoed in the focus groups by all participants. This phenomenon is not unique to occupational therapy and has been termed in some professions as the 'knowing-doing-gap' [384]. Many reasons have been proposed as to why professionals find evidence or new ideas difficult to incorporate into practice: challenging of tacit knowledge which individual practitioners develop over time; the fact that research and academics are far removed from clinical practice; the fact that it is easier to talk and rationalise why it will not work based on institutional memory and then reject it rather than critically think about it and try it, and then accept or reject it, on the basis of experience [384]. Inadequate collaboration between academics and clinicians has been reported to contribute to the 'knowing–doing-gap'. In addition, the manner in which the evidence, new ideas and knowledge are transmitted is thought to contribute to this problem. Both parties should make better use of joint opportunities that engage in the knowledge conversion process in order to promote socialisation (tacit-to-tacit knowledge exchange), externalisation (tacit-to-explicit knowledge exchange) and internalisation (explicit-to-tacit knowledge exchange) [385].

However, of more concern is the relatively high number of respondents who are expected to take on a clinical education role but who do not really want to do so (48% of the total sample). The frequency in the inexperienced group was 52.2%, while that of the experienced group 43.8%. Both Costa and Higgs advocate that clinical staff should not become OT-CEs until they are personally and professionally ready [1, 99]. While this is desirable, the reality on the Wits clinical teaching platform is that the inexperienced occupational therapists are carrying the higher percentage of the clinical education load and many may not want to take on this role. This may account for the behaviours described in the code 'Reluctant CEs' identified from the focus groups. While the questionnaire did not ask for any justification for the rating, this large group of OT-CEs is a concern. It is accepted that not all occupational therapists wish to be responsible for the clinical education of OTSs, but the recognition of this as a professional value is high [310, 383]. This may be justification for a training course for OT-CEs, especially to support those who feel reluctant.

Two of the benefits of involvement in clinical education identified in the literature are 'Keeping up to date', and 'Identifying and recruiting future staff' [40, 226]. The value of involvement in clinical education as a means of keeping up to date was reflected in the high frequency for this item, slightly higher for the inexperienced OT-CE respondents (91.3%) than for the experienced (78%). This is supported by the occupational therapy managers' view of benefits of clinical education that was reported in Chapter 5. Lifelong learning is a professional imperative, and a programme of CPD involving a stipulated number of CEUs is regulated by the HPCSA. Occupational therapy-CEs through their participation in clinical education are awarded CEUs as an incentive/reward by the university OTD [242]. An OT-CE can be awarded up to half their annual CEUs, depending on the number of OTSs they take responsible for in the year. This also acknowledges to some extent the suggestion from the focus groups and the OT-CE survey that it is the university teaching department's responsibility to be at the cutting edge of professional development, and that the university lecturing staff are obliged to teach the OT-CEs what they need to know about new developments, with no direct implication that this imparting of knowledge will inform or influence practice.

However, a low frequency of respondents in this study rated clinical education as a means of 'Identifying and recruiting future staff', with 31% of the experienced OT-CE

rating this variable as being important. This is contrary to OT-CEs in both the UK and Australia [40, 226]. This may relate to the fact that placement of new graduates in the community service year prior to full registration is managed by the National Department of Health's Community Service Office and staff have no say over who is placed at a particular hospital.

Further, in trying to ascertain the motivation and interest of OT-CEs in developing their clinical education knowledge and skill, two questions were asked: 'Attendance at the OT-CE meetings' organised by the university OTD; and 'Any activities they might have completed to extend their CE knowledge and skill'. Seventy-one percent of respondents reported that they had attended one or more clinicians meetings. This is higher than the 48% that was reported in Chapter 5. This finding may be that the OT-CEs with less than five years of experience may have attended these meetings as students, as these are joint sessions between the OT-CEs and the OTSs.

Relatively few respondents reported trying to extend their knowledge of clinical education through 'Reading' (with a frequency of 37.7%), 'Journal clubs' (with a frequency of 15%) or 'Courses' (with a frequency of 5%). While university OT-CEs are required to attend in-house educational sessions which entail reading educational resources, clinical education focused journal clubs, and education and PBL facilitation courses, the number of on-site OT-CEs who involve themselves in these types of activities is low. This result may reflect the clinical focus of their professional interest or the fact that many do not wish to be involved in clinical education. This, which is also reported in the section under clinical education values, may reflect a lack of opportunity, as hospitals rarely include this type of information in their CPD activities. This may also be related to a broader problem reported in the international literature that occupational therapists have limited skill in accessing and locating literature [386].

6.3 NEED FOR AN OT-CE TRAINING PROGRAMME

The overall purpose of this study was to establish whether there was a need for a specific OT-CE training programme as a strategy to resolve some of the problems identified on the Wits clinical training platform.

This research has identified that 94% of the respondents believed that clinical education was a professional responsibility. However, approximately half the sample (52% of the inexperienced and 48% of the experienced group of OT-CEs) can be classed as reluctant educators. While the source of the reluctance was not explored, this figure is very concerning because if half the OT-CEs are feeling pressured to take on a responsibility which they do not want, there will inevitably be an impact on the quality of the clinical education that they provide. Equipping OT-CEs with appropriate clinical education knowledge and skill may go some way to changing this reluctance, although there is no guarantee that this strategy will succeed [387]. Should the reluctance be associated with other factors, such as work load or workplace culture, then the training will have very little influence on the reluctance of occupational therapists to take on the clinical educator role.

The results of this survey describe a clear difference between the frequency of perceived knowledge and skill of clinical education of inexperienced versus experienced OT-CEs. However, this result needs to take into account the self-reported nature of the survey which focused on perceived knowledge and skill rather than actual knowledge and skill. The results also suggest that as inexperienced OT-CEs work with OTSs in clinical education contexts, over time they might gain OT-CE knowledge and skill, although the exact time scale is difficult to determine from the results. The demographic data suggest that experienced OT-CEs are not retained in clinical education sites and do not participate in clinical education, as there are very few OT-CEs over 35. As many of the OT-CEs are female, it may indicate a move away from the profession during child-raising years, but the research gathered no evidence to support this assumption. However, the low number of OT-CEs of advancing age seems to suggest that in keeping with our experience, a continuous process of up-skilling is needed with respect to clinical education. While this may happen over time, with the increasing student numbers and pressure to increase the numbers even more, this is likely to become an acute problem when the university OTD may not have the luxury of time for this process to occur. When the results are viewed against the problems relating to clinical education on our clinical teaching platform as described in Chapters 4 and 5, it is apparent that an immediate and fundamental plan of action is needed to address these problems in order to provide quality clinical education for our students.

The results presented in this chapter provide sufficient evidence to design and pilot the implementation of additional education programmes for OT-CEs in order to enhance their knowledge and skill for clinical education. Based on the results, such programmes may take the form of a longer basic course for inexperienced OT-CEs and a shorter advanced course for more experienced OT-CEs, concentrating on the variables listed in tables below.

Table 6.6: Proposed Components: Training Programme for Experienced OT-CEs

Variables below the 60% cut-off to be included in the proposed training programme		
	Knowledge	**Skills**
1	Wits educational philosophy that supports the curriculum	Using the models of clinical education
2	Responsibilities of the following within clinical education: Relief clinical educator	Identifying and facilitating the different stages of professional development of students in clinical education
3	Placement Manger	Developing and implementing clinical education contracts
4	Models of clinical education	
5	Models of professional development of students	
6	Clinical Education process	
7	Clinical education contracts with students	
8	Power factors in the clinical education relationship	

Table 6.7: Proposed Components: Training Programme for Inexperienced OT-CEs

Variables below the 60% cut-off to be included in the proposed training programme		
	Knowledge	**Skills**
1	HPCSA Minimum standards of training of occupational therapy students	Using PBL in the clinical setting
2	Exit level outcomes for the Wits BSc OT course	Facilitating students' learning
3	Wits Educational philosophy that supports the curriculum	Assessing and accommodating to students' learning styles
4	Responsibilities of the following within clinical education: University educator	Accommodate different learning styles when teaching
5	Relief clinical educators	Collaborating with university educators
6	Placement managers	Briefing relief clinical educators
7	Responsibilities attached to the roles of the clinical educator: Manager	Collaborating with placement senior /OT managers to promote clinical education
8	Administrator	Executing the roles of the clinical educator: Managing the students' learning experience
9	Consultant	Administration of clinical education
10	Evaluator	Teaching and promoting self-directed learning in students
11	Models of clinical education	Consulting with respect to clinical education
12	Models of professional development of students	Evaluator
13	Clinical education process	Using the models of clinical education
14	Development of a professional identity in students	Identifying and facilitating the different stages of professional development of students in clinical education
15	Clinical education contracts with students	Facilitating the clinical education process
16	Power factors in the clinical education relationship	Facilitating the development of a professional identity in students
17	Formative and summative evaluations	Developing and implementing clinical education contracts
18	Facilitation styles to encourage and motivate students	Developing and maintaining a clinical education relationship
19	Factors which influence the nature and quality of clinical education	Managing the power factors in the clinical education relationship
20	Factors/behaviours that identify the: At risk student	Observing students for formative and summative evaluations
21	Failing student	Using different facilitation styles to encourage and motivate students
22	Factors/behaviours that identify students	Identifying and managing factors which

Variables below the 60% cut-off to be included in the proposed training programme		
	Knowledge	**Skills**
	that have: a Learning disability	influence the nature and quality of clinical education
23	Illness which compromises learning	Coping with the: At risk student
24	Personal crises which comprises learning	Failing student
25	Poor coping skills	Coping with students with different: Levels of knowledge
26	Difficult / challenging behaviour	Levels of motivation
27	How to assist students to translate their theory into practice	Levels of ability
28	Ethical and legal aspects of clinical education	Coping with students that have: Learning disability
29		Illness
30		Personal crises
31		Poor coping skills
32		Difficult/challenging behaviour

CHAPTER SEVEN

7. OCCUPATIONAL THERAPY CLINICAL EDUCATOR TRAINING PROGRAMME

This chapter describes the final study in Part 2 of this research namely the development, implementation and evaluation of the OT-CE training programme, identified as a solution to bridge the gap in OT-CE knowledge and skill identified in the Chapter Six. The final studies, named Study 7 and Study 8 for clarity, is based on the results of Study 6 discussed in the previous chapter. Figure 7.1 illustrates the research process followed in Study 7 & 8.

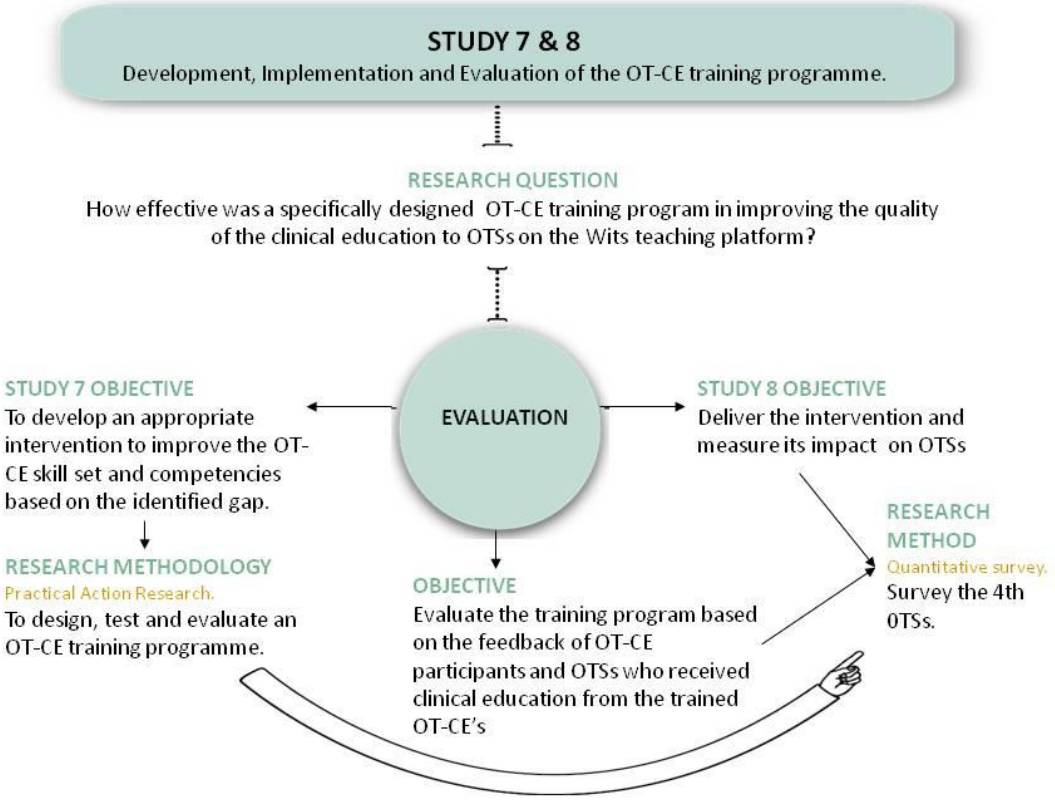


Figure 7.1: Components of Study 7 and 8

As can be seen from Figure 7.1 two research processes, each with its own objectives, were used to answer the research question. The first was to develop and evaluate a context-specific OT-CE training programme and the second was to evaluate the impact of the OT-CE training programme on the clinical education of the 4th year OTSs.

7.1 DEVELOPMENT AND EVALUATION OF AN OT-CE TRAINING PROGRAMME

7.1.1 Research Method

The pragmatic world view has been used in this section of the research since this aspect specifically focused on finding solutions that work in relation to the problems that had been identified in the earlier chapters of this research study [388].

Thus the research method used for this final aspect of the study was practical action research [179]. Practical action research was selected as an appropriate methodology as the research focused on a practical education problem that needed a realistic and viable solution. The most effective and efficient way to achieve this was through collaboration with other occupational therapy academic staff who could bring their experience and expertise to the discussion, by critically review the findings thus far, and proposing solutions that linked to the development of the previously identified in the OT-CE training programme [179, 180].

Practical action research involves a dynamic and cyclical process of discussion, reflection, proposing of solutions, testing, evaluation and revision which was embedded in the data collection and analysis process [179]. Practical action research has been criticised by some researchers as lacking the rigor of other methods, but is particularly useful in educational development and reform [179]. It is advocated to be useful in professional development. As this research is also a form of professional development, this was an appropriate method for the research.

Sampling in practical action research is typically convenient and includes all stakeholders concerned with the research topic. Results are usually descriptive and limited to the research context, and are not necessarily transferable to other situations [179, 180].

Practical action research is typically not associated with a single data collection method. The use of both quantitative and qualitative methods is common, with both methods contributing to the dynamic process of: develop/design; critical review; evaluate and redesign [180].

The data collection process used to develop and evaluate the proposed OT-CE training programme was curriculum mapping. Curriculum mapping is a process which has gained popularity in medical education [389]. It has been widely used in curriculum and course review, so as to track knowledge and specific skills

development [390-395]. Although no literature could be found on the use of curriculum mapping for short professional course development or review, the collaborative process of stakeholder participation provided a structured platform for the practical action research methodology used in this research.

Curriculum mapping is a visual representation (snapshot) of the components of a curriculum or course to provide a holistic picture of the different components and their relationships [394]. A curriculum map should reflect the expected educational outcomes, educational content, method and timing of delivery, learning opportunities and resources as well as educational sites where these may be available, how learning will be evaluated, teachers required, learners who will be admitted and how the course will be managed [389]. Thus a curriculum map makes overt the knowledge, skills and attitudes that should be achieved, the core educational content and the educational process to achieve the stated outcomes [389, 391]. Bester highlights that a curriculum map is the result of two interconnecting components: the mapping process, which demands a dynamic interaction between stakeholders, and the mapping tool [396].

A series of curriculum maps with input from multiple stakeholders has been reported to facilitate programme/course development as it makes the development process transparent and allows for collaborative decision making [394]. Figure 7.2 illustrates the cycle of activities involved in the practical action research process used in this research. Data were collected in the form of curriculum maps and the analysis was informed by collaborative thinking, critical review and solution finding [180].

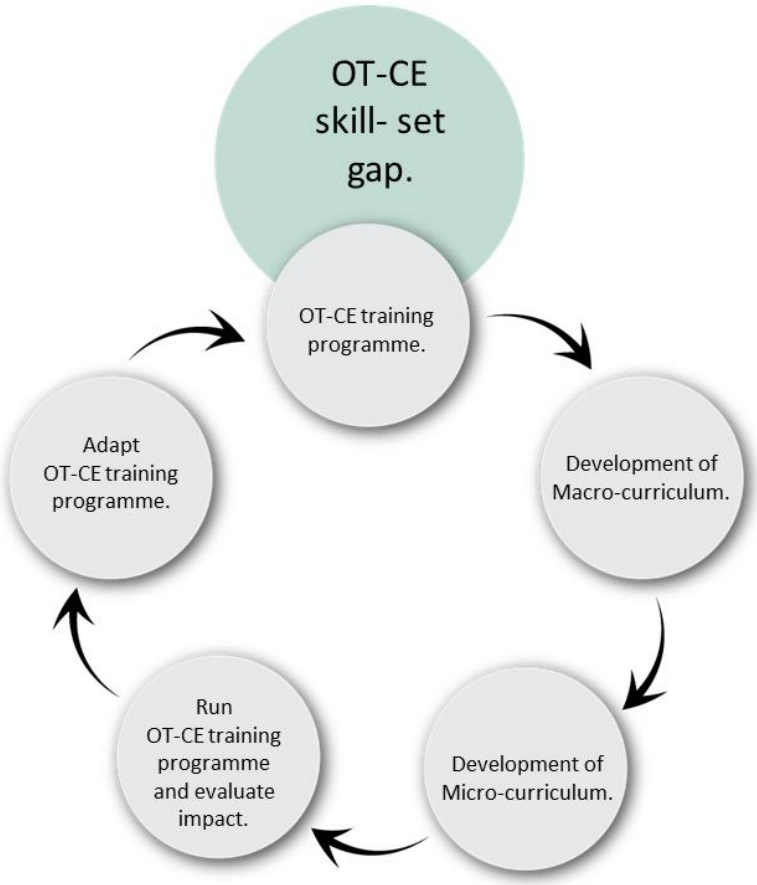


Figure 7.2: Activities in the Practical Action Research Process

The OT-CE training programme was developed using the cyclical process of activities illustrated in Figure 7.2, each with a dynamic flow of data collection, discussion, critical review and reflection, which influenced the action taken to achieve the objective. Firstly, the macro-curriculum was developed. This step considered the educational philosophy, approach and strategy as well as the curriculum outcomes and roadmap or framework that would be used. Secondly, the micro-curriculum was developed based on items in the skill-set which participants identified as having no, little or only some knowledge [25]. The planned OT-CE teaching programme was presented to a sample of OT-CEs and the programme curriculum was critically reviewed by the participants and the research assistant who attended and participated in the presented programme. Finally, the programme was evaluated and redesigned on the basis of this review.

7.1.2 Cycle 1: Development of the Macro-Curriculum

The purpose of this first cycle in the development of the OT-CE training programme was the establishing of the macro-curriculum [25]. This included an overall plan for the training, the training outcome as well as the defining of the educational approach,

strategy, principles and processes [180]. In the longer term it would be desirable for this OT-CE training to be an accredited (and even prescribed as compulsory) professional development course for all OT-CEs, as is the case in other parts of the world. However, institutional and professional structures for this are not as in place and this aspect was not considered in the research process.

7.1.2.1 **Population and sampling**

All academic staff in the Wits occupational therapy department (n=12) and the two academic staff in the School of Therapeutic Sciences e-learning team were invited to participate. This group of participants included 'educational experts' as they all had experience in curriculum development and review, in addition to teaching and clinical education expertise. Convenience sampling was used, as is appropriate in practical action research, and the number was limited to six participants to develop the first curriculum map [180]. Those staff members who indicated they were interested in participating were e-mailed the approved information sheet and consent forms (see Appendix G 1 and 2) as well as the venue and time frame for the session. A four-hour session was negotiated.

7.1.2.2 **Research process**

As is typical of action research, the session was not tightly structured and followed a somewhat circular process of discussion and debate around the nature and educational principles pertinent to the OT-CE training and the practicalities of implementation. To ensure rich discussion and active engagement, the six participants divided themselves into two groups. Three tasks were undertaken during the session to inform the research process:

The first was a **review of the OT-CE skill-set** (See Table 6.1) that had been developed and is described in the previous chapter. Each group critically analysed and debated which of the aspects listed in the OT-CE skill-set were essential for an inexperienced OT-CE as well as those that were essential for an experienced OT-CE. The purpose of this was to try to tease out 'core' versus 'nice to have' knowledge and skill.

The second task was a review of the results of the quantitative study which identified **the gap that OT-CEs perceived** in their knowledge and skills relative to those listed in the OT-CE skill-set, which was also described in the previous chapter (see Tables 6.6 and 6.7).

The final task was to draw a **curriculum map** for the macro-curriculum, taking into account the discussions and decisions from the previous two tasks and their experience.

This session was not audio-taped but the data were recorded on the documents used in the tasks listed above to facilitate the discussion, critical review. Data were also recorded on the two curriculum maps that were developed in the session (See Figures 7.2 and 7.3).

7.1.2.3 Data analysis

The data were analysed descriptively and mostly within the session itself, as is typical of practical action research [179, 180]. Due to time constraints within the session the researcher collated the data concerning the 'core' and 'nice-to-know' data into a single table and combined the two curriculum maps into a single map which was used in the next action cycle.

7.1.2.4 Results of cycle 1

The six participants in the educational expert group were all female and Caucasian. One participant had a Bachelor level qualification in occupational therapy while five had Masters Degrees and one a PhD. The participants' experience as teachers varied from 1-33 years and all had been OT-CEs of students for between 8-40 years, either during or before their university tenure.

All participants supported the information included in the OT-CE skill-set. There was some discussion on the categorisation of knowledge and skill items but decided that change was not required. The agreed skill-set is recorded in Table 7.1.

Table 7.1: Confirmed Contents of the OT-CE Skill-Set

		Unit	Element	Agreed core information to be included in OT-CE training programme
FOUNDATION	**Personal attributes and characteristics**	**Attitude towards People**	Being supportive, empathetic and sensitive to needs and feelings, adaptive, engaging and facilitating of autonomy,	Being organized, Being respectful, culturally sensitive, non-judgmental
PROCESS OF LEARNING	**Roles and functions of a OT-CE**	**Educational Role**	Explain the clinical education process. Identify the characteristics of the 'at risk' student and describe strategies to deal with them. Explain the characteristics of the excellent student and describe strategies to deal with them. Identify the stressors of OT-CE and methods of preventing burnout.	Must have an overview of the educational programme's philosophy, model and approach. Understanding the implications for the clinical education blocks. Understand the design and sequence of clinical education blocks for the transitioning of knowledge into the development of professional clinical competencies. Understand the roles of the OT-CE relative to the other role players: university educators, site clinical coordinator and students.
		OT-CE-OTS relationships	Describe the importance of the OT-CE-student relationship. Identify the different diversity markers and reflect on how these impacts on CE-OT relationship with OTSs and their relationships with clients. Mentoring to develop OT-CE skills.	Describe the development and maintenance of an effective culturally sensitive OT-CE-OTS relationship. Discuss how to adapt interpersonal skills and relating to the student's needs. Identify and discuss how to respond appropriately to interpersonal and communication difficulties. Explain the process of counselling and debriefing students. Discuss the indications and process for referral for additional assistance (academic/personal).
ACQUIRED KNOWLEDGE	**Competencies to be an OT-CE**	**Educational competencies**	Demonstrate competence in: Facilitating clinical learning to achieve specified clinical competencies Using the PBL philosophy and process. Facilitating development of a professional identity. Manage clinical education of 'at-risk' students. Manage clinical education of excellent students. Manage clinical education of students with disabilities. Managing work stress and burnout	Demonstrate competence in: Managing a clinical education block. Supporting students to achieve learning outcomes. Formative and summative evaluations. Giving feedback. Grading of student performance.
		OT-CE relationship competencies		Form appropriate OT-CE-OTS relationships to support the CE process. Manage the power within the OT-CE relationship. Identify and manage problem behaviour.

The two groups debated the two training programmes in relation to the skill-set as well as Tables 6.6 and 6.7. The participants noted the significant gap between inexperienced and experienced OT-CEs perception of their knowledge and skill variables relative to those listed in the OT-CE skill-set. The participants confirmed that from their experience the finding that becoming a competent OT-CE is a process that takes place over time and as a result of practice was correct. They also agreed that the exact point at which one is considered to be competent is difficult to define and concluded that this may be a person specific development influenced by many factors including the desire to teach and educational knowledge and skill. In keeping with the lifelong learning philosophy it was agreed that even experienced OT-CEs do not know it all. There is always new evidence which provides new knowledge and new techniques, and the opportunity to hone old ones and develop new ones.

Thus it was agreed that two separate training programmes were needed and would be more practical to implement: A formal and comprehensive programme for inexperienced OT-CEs; and an informal 'top-up' programme for the more experienced OT-CEs.

Much of the discussion revolved around whether addressing only those knowledge and skill variables which were rated below the 60% cut-off should be included in the training programme or whether some of the knowledge and skill variables rated above the 60% cut-off should be included as well. This debate arose from the participants' experience of working with both inexperienced and experienced OT-CEs. The participants were surprised at the list of variables that OT-CEs perceived they knew and could do, as it was different from their experience in the clinical education context, thus raising the knowing–doing gap that had previously been discussed. It was decided that some information on the variables that were rated over the 60% cut-off may be strategic to support knowledge and skill variables below the 60% cut-off, but the emphasis in the training programme should be on those variables below the 60% cut-off.

Figures 7.2 and 7.3 are photographs of the macro-curriculum maps developed by the two groups of participants.

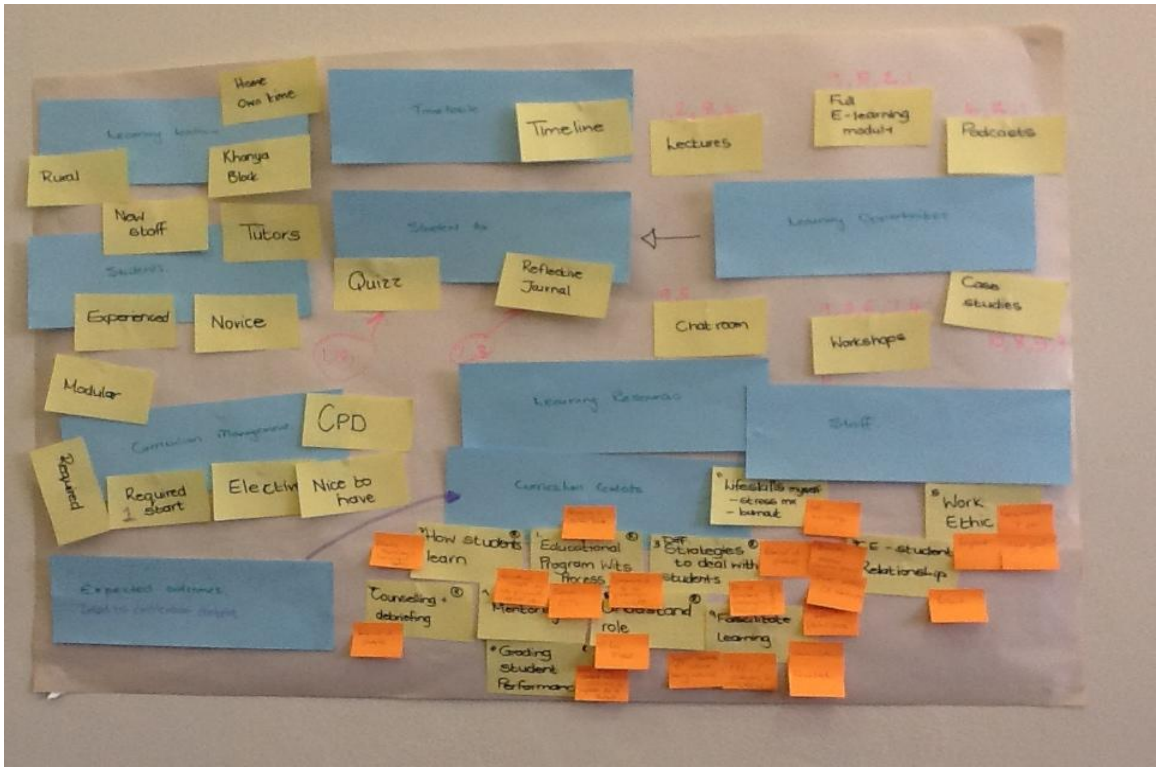


Figure 7.2: Macro-Curriculum Map: Group1

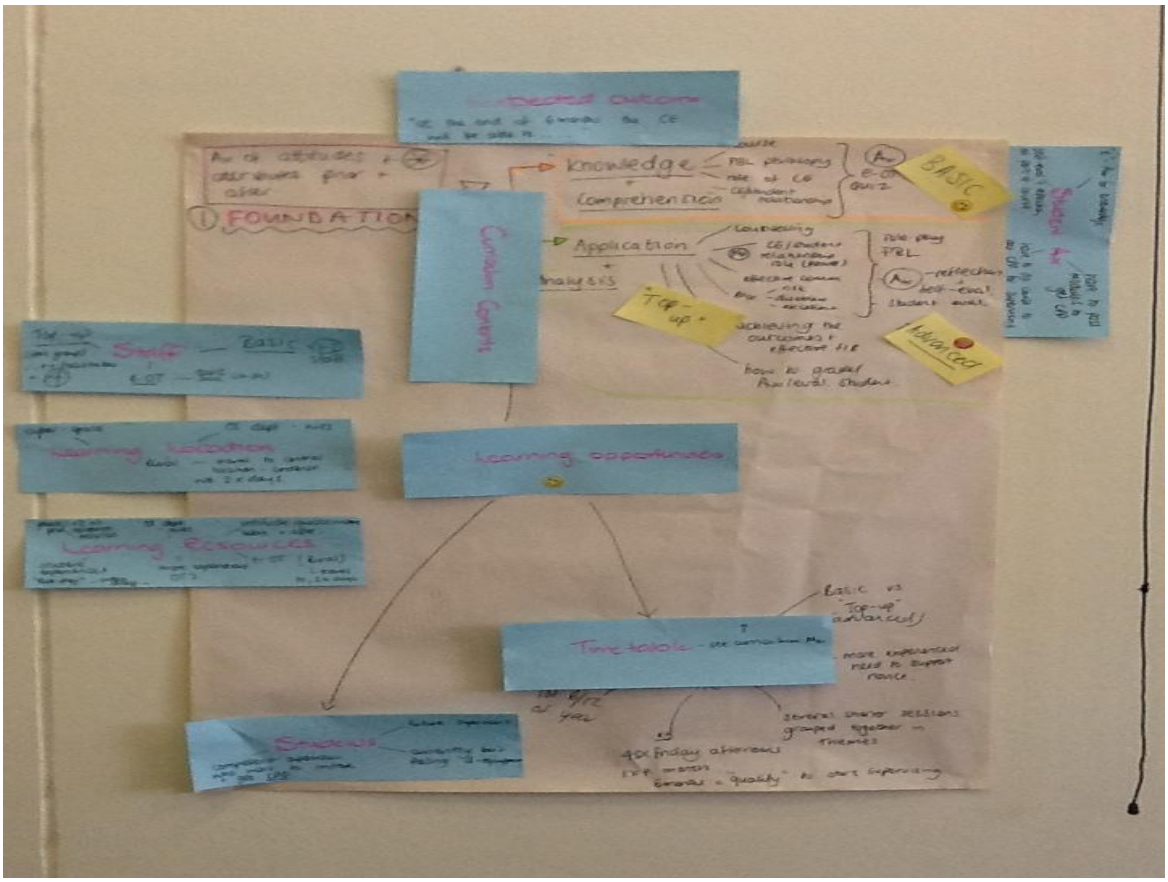


Figure 7.3: Macro-Curriculum Map: Group 2

Table 7.2 details the elements that both groups agreed should be included in the proposed OT-CE training programme for new or inexperienced CEs. These two curriculum maps were combined into the final macro-curriculum map by the researcher (see Figure 7.4).

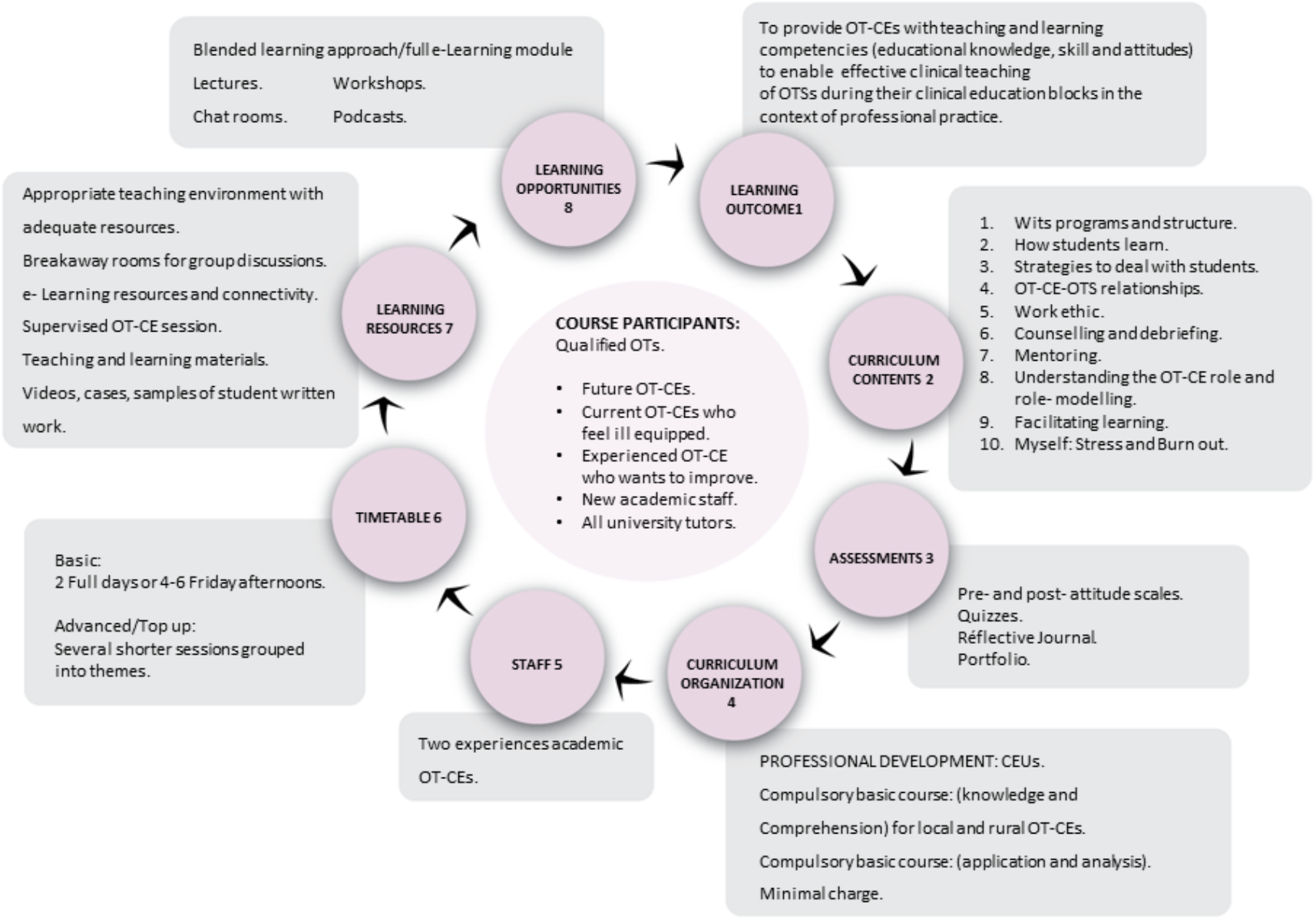


Figure 7.4: Combined Macro-Curriculum Map of the Training of OT-CEs

Table 7.2: Agreed OT-CE Skill-Set Information to be Included in the Training for Inexperienced OT-CEs

		Unit	Element	Agreed core information to be included in OT-CE training programme for inexperienced OT-CEs
FOUNDATION	**Personal attributes and characteristics**	**Attitude towards People**	Being supportive, empathetic and sensitive to needs and feelings, adaptive, engaging and facilitating of autonomy.	Being organized, Being respectful, culturally sensitive, non-judgmental
PROCESS OF LEARNING	**Roles and functions of a OT-CE**	**Educational Role**	Explain the clinical education process. Identify the characteristics of the 'at risk' student and describe strategies to deal with them.	Must have an overview of the educational programme's philosophy, model and approach. Understanding the implications for the clinical education blocks. Understand the design and sequence of clinical education blocks for the transitioning of knowledge into the development of professional clinical competencies. Understand the roles of the OT-CE relative to the other role players: university educators, site clinical coordinator and students.
		OT-CE-student relationships	Describe the importance of the OT-CE-student relationship. Identify the different diversity markers and reflect on how these impacts on CE-OT relationship with OTSs and their relationships with clients.	Describe the development and maintenance of an effective culturally sensitive OT-CE-OTS relationship. Discuss how to adapt interpersonal skills and relating to the student's needs. Identify and discuss how to respond appropriately to interpersonal and communication difficulties. Explain the process of counselling and debriefing students. Discuss the indications and process for referral for additional assistance (academic/personal).
ACQUIRED KNOWLEDGE	**Competencies to be an OT-CE**	**Educational competencies**	Demonstrate competence in: Facilitating clinical learning to achieve specified clinical competencies Using the PBL philosophy and process. Manage clinical education of 'at-risk' students. Managing work stress and burnout	Demonstrate competence in: Managing a clinical education block. Supporting students to achieve learning outcomes. Formative and summative evaluations. Giving feedback. Grading of student performance.
		CE relationship competencies		Form appropriate OT-CE-OTS relationships to support the CE process. Manage the power within the OT-CE relationship. Identify and manage problem behaviour.

7.1.2.5 Discussions that informed the educational content of the consolidated macro-curriculum maps

The macro-curriculum maps of group 1 and 2 reflected the discussion and decisions within the two groups as to the fundamental and advanced information to be included in the training for inexperienced versus experienced OT-CEs.

There was consensus that all information reflected in the OT-CE skill-set should be included in the training except for some personal attributes and characteristics which were felt could not be taught such as being receptive, supportive and sensitive to a student's needs and feelings.

Both groups agreed that the personal attributes and characteristics described in the units: 'Commitment to the profession and its advancement', 'Work ethic' and 'Attitude towards people' were essential, but were not characteristics or attributes that could easily be taught within the proposed course. It was agreed that in our specific social context it was important to address 'Being respectful', 'Culturally-sensitive and non-judgemental' in spite of this being difficult to teach and measure. 'Being organised' was also included after a long discussion. It was agreed that 'Giving time' in a clinical education context and 'Being cognisant of and respecting the time of others' demanded being organised. While this was considered a personal attribute or characteristic, it was decided that 'To be organised' could be influenced through knowledge and skill development. The same reasoning and decision was applied to personal and professional competencies that were listed as competencies to be an OT-CE. Thus these two personal attributes were included in the programme for inexperienced OT-CEs in the foundation unit 'Attitudes towards people':

- 'Being organised and respectful',
- 'Being culturally sensitive and non-judgmental'. Literature was consulted to support their relevance and to define concepts that were somewhat vague.

Being organised was described by Ruesseller and Obertade as essential for any clinical educator in a busy clinical practice site [332]. This attribute has been described as both a personality trait and a skill which can be developed [397, 398]. It is also considered to be one of the traits of highly productive individuals [399]. Research by Patrick suggests that to be organised, as part of the conscientiousness domain of in the Big Five Model of Personality, is an educator trait that is valued by students [397, 400]. Being organised is supported by the other traits in the conscientiousness domain

including: ‘diligence; dependability; self-discipline; prudence; competence; order and achievement strivings’ [401].

On the other hand, being respectful, culturally sensitive and non-judgmental relate to cultural and trans-cultural competence. These aspects have been described as essential competencies both professionally and educationally, especially in the multicultural context of South Africa [358, 402]. Cultural competence is a complex combination of awareness, knowledge and sensitivity to a number of diversity markers including age, ethnicity, religion, sexual orientation, gender, socio-economic status, health beliefs and practices and occupational choices. Trans-cultural competence, on the other hand, is the use of cultural competence to work with students who are of a different cultural orientation [357, 358, 403]. This was included as cultural diversity is common within the CE-OTS relationship and adds an additional demand to this relationship, which is complex but critical to the clinical learning process. Trans-cultural competence is recognized as a dynamic process which requires cognitive, attitudinal and behavioural shifts that cannot be fully addressed in an OT-CE training programme. However raising awareness of participants’ knowledge, assumptions and biases would be a good start [357]. While inexperienced OT-CEs may grapple with the practicalities of practising trans-cultural competence, it is desirable to create a conducive learning environment by recognizing the challenges and hopes of all students while respecting their diversity [402].

In the section labelled ‘Roles and Function of the OT-CE’ there was mixed opinion on four items as to whether they were fundamental or advanced variables. In the ‘Educational Role’ unit, explaining the clinical education process and identifying the characteristics of an ‘at risk’ student and describing strategies to deal with them were identified (See Figure 7.1). Both these items were included in the inexperienced programme as, after discussion, it was appreciated that to understand the roles it was essential to understand the process first, and even inexperienced OT-CEs are likely to have to identify and manage an ‘at risk’ student.

In the ‘OT-CE-student relationships’ unit there was disagreement about the importance of diversity markers and how these impact on the OT-CE-OTS relationship (See Figure 7.1). The importance of the OT-CE-OTS relationship was included due to its importance and the centrality of this relationship, which had been identified in earlier parts of the study. Identifying diversity markers was ultimately included as it supported the earlier decision in the ‘Attitude towards people’ unit,

where this variable had already been highlighted for inclusion. The information to be included in the inexperienced programme would be limited to the OT-CE–OTS relationship and not extend to relationships with clients.

In the section that dealt with the competencies to be an OT-CE there was disagreement about three items. The first was facilitating clinical learning using the PBL philosophy and process. This was not a competency that inexperienced OT-CEs felt that they needed to learn (See 6.3.7), probably because the sample of inexperienced OT-CEs who completed the skill-set questionnaire were mostly Wits graduates and it is assumed that since this is how they had been taught, they felt that this was something they knew. Nevertheless it was included in the inexperienced OT-CE programme for two reasons: firstly for the benefit of OT-CEs who were not Wits trained, and secondly it was evident from the discussions in the focus groups that PBL was not being used effectively in clinical settings and the PBL process enabled OTS to learn independently and critique practise on the basis of evidence. Furthermore, clinical staff continuously request that more information be added to the curriculum when student knowledge could be extended using the PBL process. The second variable 'Managing the clinical education of at-risk' student was included in the inexperienced programme for the reasons described above. The third variable 'Managing work stress and burnout' was included in the advanced course only. Although there was concern that inexperienced OT-CEs were more prone to stress and burnout especially those working alone, responses to the skill-set questionnaire reported low levels of work stress and burnout in the inexperienced group although in the focus group the OT-CE participants did report being stressed. Thus although there was some contradictory information on the stress of clinical education, it was decided to include information on managing work stress and burnout for experienced OT-CEs but not for the inexperienced group.

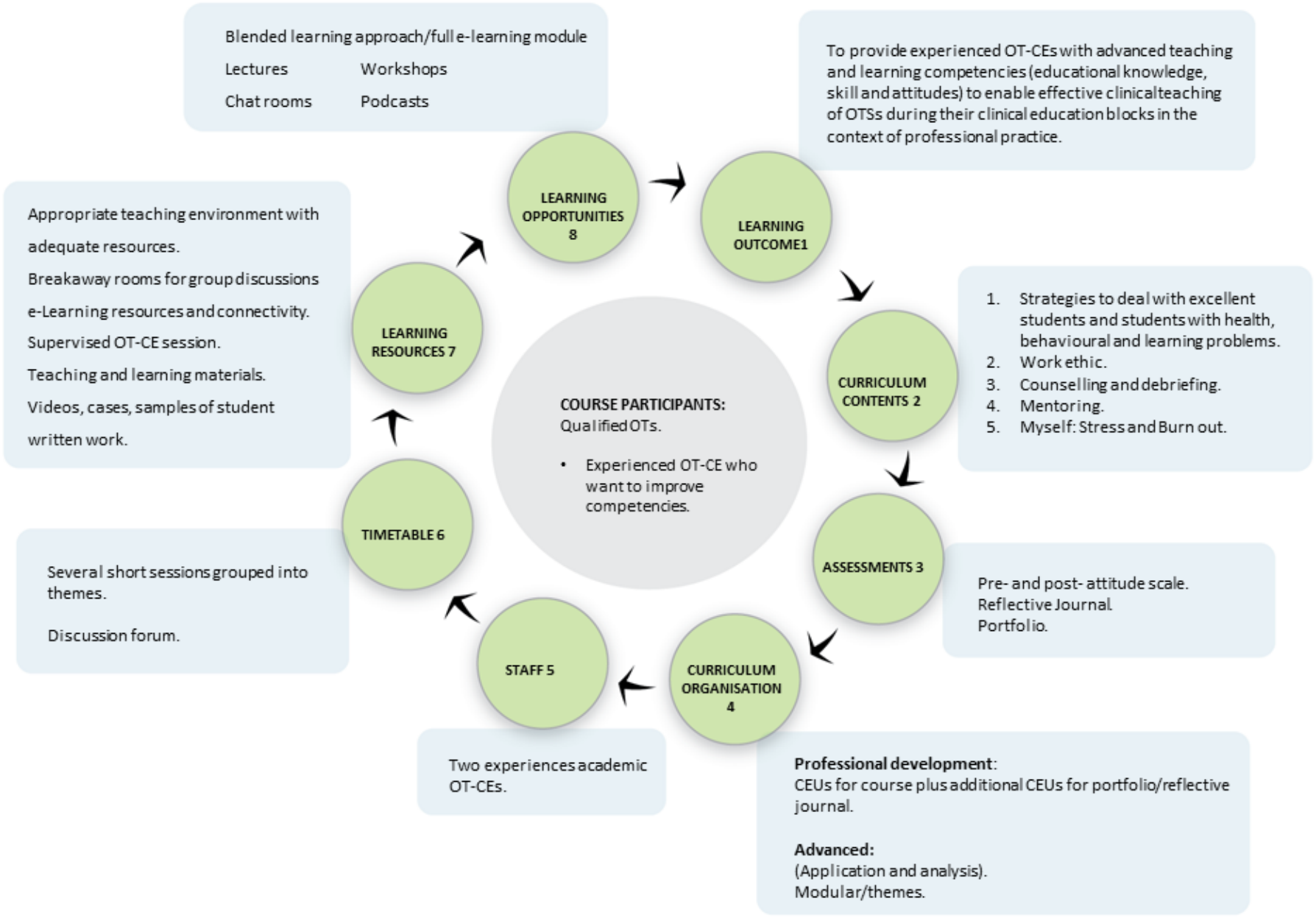


Figure 7.5: Macro-Curriculum Map for the Training of Experienced OT-CEs

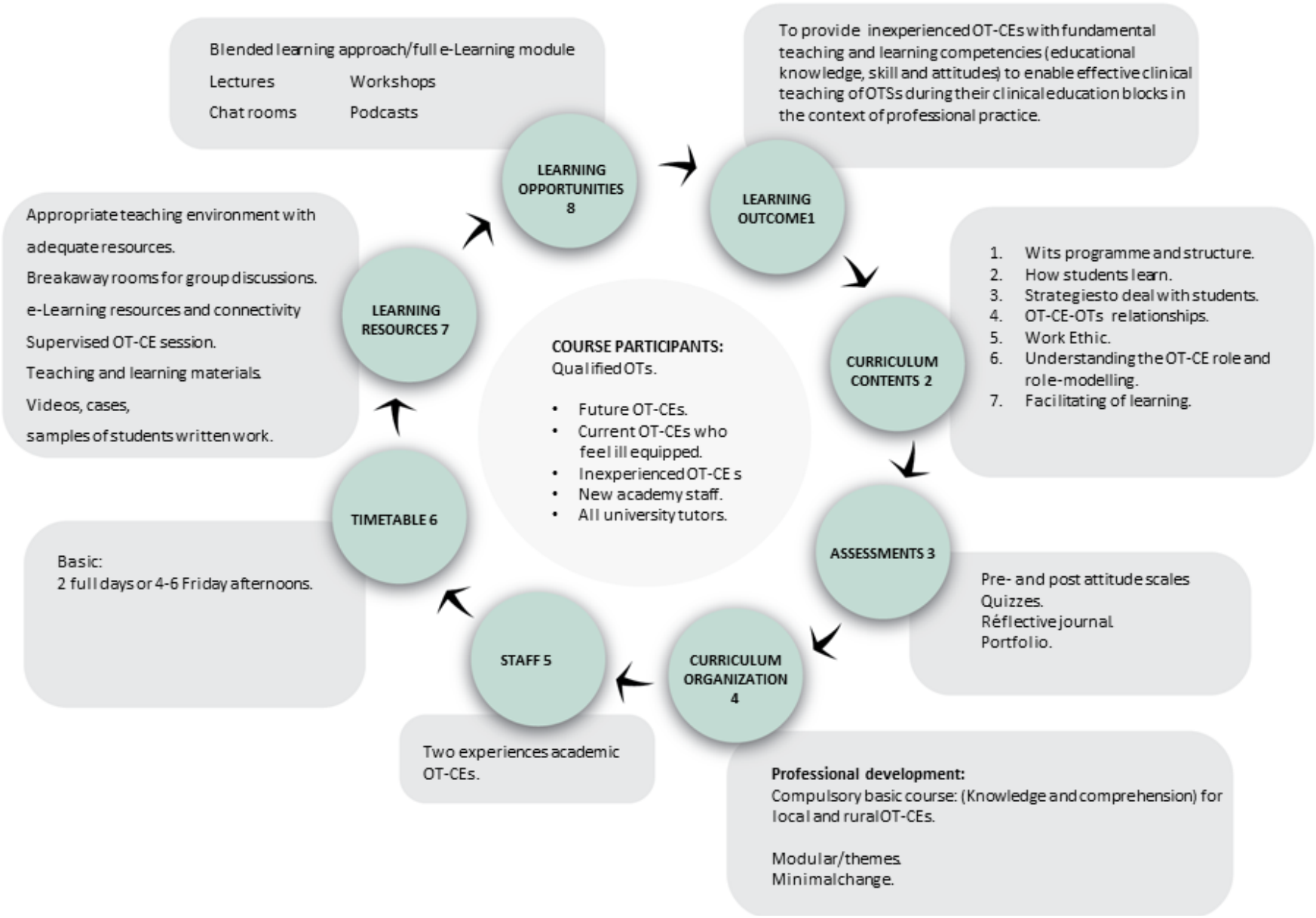


Figure 7.6: Macro-Curriculum Map for the Training of Inexperienced OT-CEs

The combined curriculum map was supported and modified by the information completed by the participants in Section 3 of the OT-CE skill-set questionnaire described in Chapter 6. Section 3 of this questionnaire addressed criteria that the participants indicated needed consideration when designing the OT-CE training programme.

Fifty-three participants answered this section of the questionnaire, (5 university lecturers, and 24 experienced and 24 inexperienced participants). In the analysis of the OT-CE skill-set data described in Chapter 6 the university lecturers were included in the experienced group of participants, however in this analysis they were included as a separate group as their opinion about the different items on the questionnaire, although in a similar range to the other experienced participants, was slightly higher in all cases. All responses are recorded in Table 7.3.

Table 7.3: Factors Needing Consideration in Designing an OT-CEs Training Programme

Criteria to be considered in design of potential training	Total sample n=53 (100%)	Lecturers n=5 (9.4%)	Experienced CEs n=24 (45.3%)	Inexperienced CEs n=24 (45.3%)
Inexperienced level	83.3%	100%	75%	91.3%
Advanced level	74.1%	60%	62.5%	87%
Formal, registered course	74.5%	100%	71.9%	73.9%
Compulsory for all CEs	74.1%	80%	71.9%	73.9%
Include CEU points	98.2%	100%	96.8%	95.7%
All online	9.3%	20%	12.6%	4.3%
Face-to-face training with some online elements	55.6%	60%	40.6%	79.3%*
Forum for discussion	87.8%	100%	68.6%	91.3%

*p=0.05

The curriculum map developed for each level of training informed the development of the micro-curriculum in cycle (see Figures 7.5.and 7.6).

7.1.3 Cycle 2: Development of the Micro-Curriculum

Although a macro-curriculum map was developed for the training of both the experienced and inexperienced OT-CEs, a micro-curriculum was developed for only the inexperienced OT-CEs. In the context of this research the training of the

inexperienced OT-CEs was the priority solution to addressing some of the OT-CE problems on the Wits clinical teaching platform.

Using the macro-curriculum map developed for inexperienced OT-CEs (See Figure 7.6) and the agreed educational content to be included in the inexperienced OT-CE training programme set out in Table 7.2 the researcher developed the first draft of the inexperienced OT-CE training programme.

7.1.3.1 **Learning outcome**

This remained as was described in the macro-curriculum map for the training of inexperienced OT-CEs: To provide inexperienced OT-CEs with the fundamental teaching and learning competencies (educational knowledge, skill and attitudes) to facilitate effective clinical teaching of OTSs during their clinical education blocks in the context of professional practice.

7.1.3.2 **Curriculum content**

In order to meet the above learning outcome the proposed curriculum content was organised into six discrete sessions using the five elements listed in the macro-curriculum map for inexperienced as well as the fundamental information to be included in the proposed training programme for inexperienced OT-CEs (See Table 7.2).

Six sessions were developed as it was anticipated that the programme could be offered either over four to six afternoon sessions (depending on the starting time) or over two full days. The sessions were designed to systematically link over the training period starting with more generic information and then focussing on more specific information towards the end. Each session was named and linked to the OT-CE knowledge, skills and attitude variables and objectives were described for each session (See Table 7.3). The percentages listed in the Table 7.4 reflect the shared percentage of knowledge and skill within the inexperienced group below the 60% cut-off as described in Chapter 6.

Table 7.4: Organisation of Micro-Curriculum Contents

Session Title	CE Knowledge Variables	CE Skills Variables	CE Attitude Variables	Objectives
Session1. Clinical education within the Wits clinical curriculum.	HPCSA minimum standards of training (37.5%). Exit Level outcomes for Wits B Sc OT course (57.1%). Wits educational philosophy (47.8%). Roles and responsibilities: University educator (58.3%). Administrator (33.3%). OT manager (25%). Relief CE (26%). Models of clinical education 33.3%). Ethical and legal aspects of clinical education (45.8%).	Collaborating with: University educators (58%). Senior/OT Managers (50%). Briefing relief OT-CEs (33.3%). Consulting around clinical education (41.7%). Using the models of clinical education (29.2%). Administration of clinical education (45.8%).		At the end of the session the participant will be able to: Recognise the main educational principles that support the clinical education of the 4th year OTSs. Critically review the roles and responsibilities of the clinical education role players in the clinical education site where they work. Evaluate the different models of clinical education and explain the benefits and challenges of the model(s) used in the clinical education site where they work. Manage the administration associated with clinical education. Describe the ethical and legal aspects of clinical education.
Session 2 Clinical learning *a)How students learn*	The clinical education process (29.2%) Power factors within the clinical education relationship (33.3%).	Facilitating the clinical education process (54.2%). Managing the student's learning process (45.8%). Using PBL in a clinical setting (45.9%). Teaching and promoting self-directed learning in OT students (58.3%). Facilitating students' learning (58.3%). Assessing and accommodating students' learning styles (45.8%). Accommodating different learning styles when teaching (37.5%). Developing and maintaining clinical education relationships (45.8%). Managing the power factors in the clinical education relationship (37.5%).	Motives for being involved in clinical education (personal/professional) Being organised Being culturally sensitive and non-judgemental	At the end of the session the participant will be able to: Describe how students learn in a clinical context and practise techniques to facilitate/ accommodate individual students learning. Explore the development and maintenance of the CE-OTS relationship and how to manage the power factors within this relationship. Critically review personal and professional motives for being involved in clinical education and how this might impact on the clinical education of OTSs.

Session Title	CE Knowledge Variables	CE Skills Variables	CE Attitude Variables	Objectives
Session 4 **Clinical learning** ***c) How to facilitate development of professional identity and professional values.***	Models of professional development (21.7%). Development of a professional identity (41.7%).	Identifying and implementing different stages of professional development in OTSs during clinical education (29.2%). Facilitating the development of a professional identity (50%).		At the end of the session the participant will be able to: Describe the model of professional development. Explore how to assist OTSs to develop through the stages. Describe the development of a professional identity and explore practical techniques to facilitate this in an OTS.
Session 5 **Clinical learning** d***) How to evaluate students.***	Role and responsibilities of an evaluator (54.2%). Formative and summative evaluations (43.5%).	Role of the evaluator (58.3%). Observing students for formative and summative evaluations (58.3%).		At the end of the session the participant will be able to: Describe the role and responsibilities of the evaluator. Describe how to and what to observe in student performance for formative and summative evaluation purposes.
Session 6 **Problem students.**	Factors/ Behaviours that identify: An at-risk student (54.2%). Failing student (54.2%). Differing Levels of motivation (43.5%). Personal crises which compromise learning (41.7%).	Coping with: The at risk students (41.7%). The failing students (29.2%). Coping with students with different levels of : Knowledge (58.3%). Motivation (45.8%). Ability (45.8%). Coping with students that have : A learning Disability (37.5%). Illness (45.8%). Personal crises (41.7%). Poor Coping Skills (37.5%). Difficult or challenging behaviour (29.2%).		At the end of the session the participant will: Be able to describe the behaviours and cues which identify problem students. Examine strategies to cope with and assist these problem students.

The specific content for each session was planned based on the objectives that were described in Table 7.4. Each session consisted of some theoretic information which was presented in a PowerPoint presentation and a variety of practical learning activities. It was planned that the PowerPoint presentations would not be used as lectures per se, but to facilitate discussion by eliciting participants experiences and opinions about issues. Some sessions were introduced with a warm-up activity to introduce the topic to be discussed (e.g. If you tell a student their performance is 'good' what do you mean in terms of marks/rating of the performance and what do think students understand when you say something is good), while other sessions started with small group or dyad discussions (e.g. from your experience what indicates that a student is not coping) and practical activities (giving feedback based on a video clip or a daily treatment plan) to facilitate the learning and stimulate discussion. Throughout the programme it was anticipated that participants would bring their own experiences as students or as OT-CEs to the discussion. A reading pack with key information was also developed for participants: the HCPSA Minimum Standards of Training and Wits Exit Levels Outcomes as well as a number of journal articles for participants to read to support the information that was discussed in the training programme. Copies of these can be found on the CD in Appendix G: 9). A teaching plan for the training was also developed which can be seen in Table 7.6.

7.1.3.3 **Review of micro curriculum for inexperienced OT-CE training**

To ensure the continuous cycle of feedback in the action research process, copies of all the OT-CE training materials were sent to the participants of Cycle1 and the research assistant. They were asked to critique the educational information and practical learning activities in terms of the objectives, logical flow, sequencing and coherence. Only two responses were received by the due date and changes were made to the training materials based on this feedback. (See Appendix G: 9).

Table 7.5: Comments on the Organisation of Micro-Curriculum Contents

Session Title	CE Knowledge variables	CE Skills variables	CE Attitude variables	Objectives
Session 1 Clinical education within the Wits clinical curriculum.	HPCSA minimum standards of training (37.5%). Exit Level outcomes for Wits B Sc OT course (57.08%). Wits educational philosophy (47.82%). Roles and responsibilities: University educator (58.33%). Administrator (33.33%). OT manager (24.99%). Relief CE (25.99%). Models of clinical education 33.33%). Ethical and legal aspects of clinical education (45.83%).	Collaborating with: University educators (58%). Senior /OT Managers (50%). Briefing relief OT-CEs (33.34%). Consulting around clinical education (41.66%). Using the models of clinical education (29.16%). Administration of clinical education (45.83%).		At the end of the session the participant will be able to: Recognise the main educational principles that support the clinical education of the 4th year OTSs. Critically review the roles and responsibilities of the clinical education role players in the clinical education site where they work. Name the different models of clinical education and explain the benefits and challenges of the model(s) Used in the clinical education site where they work. Describe the administration associated with clinical education. Describe the ethical and legal aspects of clinical education.

Session Title	CE Knowledge variables	CE Skills variables	CE Attitude variables	Objectives
Session 2 Clinical learning a) *How students learn*	The clinical education process (29.16%). Principles of PBL. Power factors within the clinical education relationship (33.32 %.)	Facilitating the clinical education process including required learning opportunities (54.17%). Managing the student's learning process (45.83%). Using PBL in a clinical setting (45.85%). Teaching and promoting self-directed learning in OT students (58.33%). Facilitating students learning (58.33%) Reflect on when OTSs don't learn from experience and know how much repetition is required. Assessing and accommodating students learning style (45.83%). Accommodating different learning styles when teaching (37.5%). Developing and maintaining a clinical education relationship (45.84%). Managing the power factors in the clinical education relationship (37.50%).	Motives for being involved in clinical education (personal/professional). Being organised Being culturally sensitive and non-judgemental	At the end of the session the participant will be able to: Describe how students learn in a clinical context and practice techniques to facilitate/accommodate individual students learning. Explore the development and maintenance of CE-OTS relationship and discuss how to manage the power factors within this relationship. Critically review their personal and professional motive for being involved in clinical education and how this might impact on the clinical of OTSs.

Table 7.6: Session Plan for Inexperienced OT-CE Training programme

Day 1			
08.30-08.40	Welcome Introduction of participants (10 minutes)	Welcome and thanks Introduce each participant and researcher and assistant	Researcher
08.40-09.00	Introduction (20 minutes)	Information sheet and consent Completion of pre-training questionnaire	Research Assistant
09.00-10.00	Warm-up: o Activity: Clinical supervision/clinical education: doing and being (20 minutes) o Discussion (40 minutes) o Look at the clinical education supervision diagram and discuss	Small group activity Divide into 3 groups: 1. What was it like to be: a. being supervised b. supervising 2. 'Clinical supervision is…..'	Researcher
10.30-11.00	Producing clinically competent graduates: o Refer to philosophy document o Roadmap Populate the on-site CE partnerships and roles and responsibilities slide	Powerpoint 15 minutes Small group activity 15 minutes Completion of the roles of CVE role player grid Completion of making CE partnerships work grid.	Researcher
11.00-12.30	How students learn o Definitions o Teaching knowledge and skill o CE-OTS relationship o Developing a supportive clinical learning environment	Powerpoint plus discussion (30 minutes) 4 small group activities: o Teaching in the clinical setting using a PBL approach (slides 6-10) o CE-OTS relationship: student perspective/CE perspective (slides 5-18 [values] and 19-24 [power]) 20 minutes discussion and 40 minutes feedback and discussion.	Researcher
13.45-14.15	Helping students learn: Facilitating clinical reasoning, professional identify and professional values (20 minutes) Learning Contract (10 minutes)	Powerpoint	Researcher

14.15-16:15	Small groups working on a scenario	Working : 1 hour helping student learn scenario Feedback: 10 minutes per group Discussion	Researcher and Research Assistant
16.15-16.30	Wrap up		Researcher

Day 2			
08.30-08.45 08.45-10.00	Welcome Warm-up Student evaluation	 Warm-up (8.45-9 00) Describe good performance PowerPoint (9.00-9.30) Practical activity (9.30-10.00) Check understanding of the clinical evaluation form/descriptors/how they link to the outcomes	Researcher Researcher Assistant Researcher Researcher and Research Assistant
10.00-10.15	Tea		
10.30-11.30	Feedback	Power point Small group work: Video of treatment session (OP332: You Tube) Treatment plan Mid-block evaluation: plan feedback	Researcher Researcher Researcher Assistant
11.30-12.30	Student evaluation to promote learning	PowerPoint (11.30-11.40). Practical work (11.40-12.00). Using the same scenarios as above, plan a teaching and learning intervention for the student. Feedback (12.00-12.30) 10 minutes per group.	Researcher
12.30-13.15	Lunch		
13.15-14.30	Problem students	PowerPoint. Failing student: PowerPoint of failing student 2014 scenario. Big group discussion.	Researcher
14.30-15.30	Making clinical education work in your busy day	Discussion	Researcher
15.30-16.00	Evaluation and closure	Completion of post-training OT CE skill-set questionnaire Completion of the Evaluation of training questionnaire Handing out of CPD and attendance certificates Wrap up	Research Assistant

7.1.4 Cycle 3: Piloting of the Inexperienced OT-CE Training Programme

This cycle consisted of piloting of the designed inexperienced OT-CE training programme described in Cycle 2 and evaluating its usefulness from the perspective of the participants and its' effectiveness from the perspective of the students who were supervised by the participants post-training. The outcome of this Cycle 3 would be used to evaluate and adjust the training programme in the final cycle (See Figure 7.2). Since this aspect was experimental in nature a null hypothesis was established to be tested:

Active participation in and completion of the inexperienced OT-CE training programme would not influence:

- the participants' perception of their knowledge, skills and values related to clinical education as identified on the OT-CE skill-set,
- the students' perception of the clinical education post training.

7.1.4.1 Research method

The research method used in this cycle was a quasi-experimental test-retest design where inexperienced OT-CE participants were conveniently sampled from specific clinical training sites [178]. The independent variable was the completion of the OT-CE training as describe in the micro-curriculum in Cycle 2. The dependent variables are the participants' pre- and post-training scores measured by completing the OT-CE skill-set questionnaire (developed in Chapter 6), the post training evaluation questionnaire and the student's evaluation of the clinical education that they received from OT-CEs who had completed the inexperienced OT-CE training programme. See Figure 7.8 below that describes the steps in the research cycle.

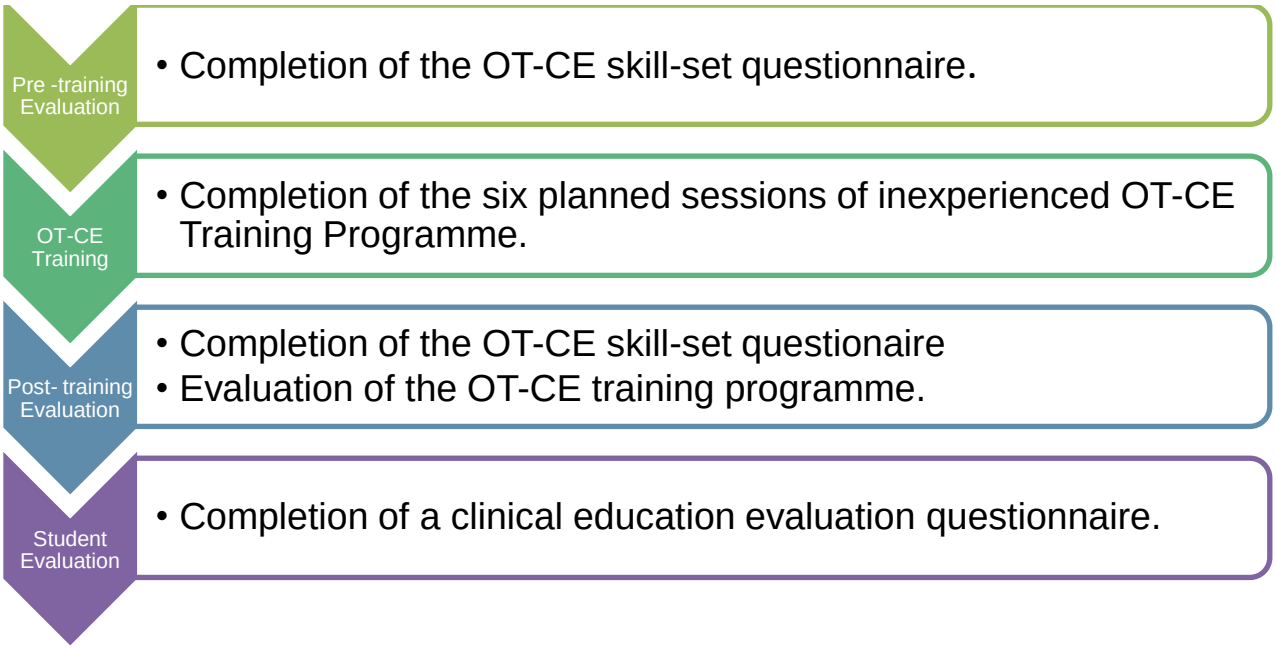


Figure 7.7: Research Process of Cycle 3

7.1.4.2 **Population and sampling**

The study population consisted of two population cohorts.

Firstly, all OT-CEs who considered themselves to be inexperienced OT-CEs working at clinical education sites on the Wits teaching platform; and

Secondly all the final year students who had completed a number of clinical education and whose clinical education had been guided by OT-CEs who had been trained as well as those who had not been trained.

When the research was planned it was anticipated that all OT-CEs from one or two selected clinical education sites would be invited to the training in order to reduce contamination through the sharing of information between OT-CEs. It was anticipated that the optimal time for this training would be in the third quarter of the academic year when the community service occupational therapy staff could be included in the sample and there would be at least two clinical education blocks before the surveying of the students. However, no appropriate date for this two day training could be negotiated with clinical departments that allowed for surveying of the final year students before the start of their final examinations. Therefore the following compromise was made: two

training sessions were scheduled in the first quarter of the academic year three weeks apart; one for the two large academic hospitals in the south west of Johannesburg and the other for the training sites on the primary platform and three training hospitals in the north east of Johannesburg. The surveying of the OTSs was scheduled for just before the mid-year break when students would have completed three or four clinical education blocks depending on their rotation.

A sample of inexperienced OT-CEs was purposively sampled and although they were trained in two time periods they were considered as one sample in the analysis. Since this was a pilot study only two two-day training programmes were planned. The numbers on each training progamme was limited to between 8-10 participants so as to enable active discussion and small group work. Thus, it was anticipated that the sample would be about 20 which was thought to be about 25% of the OT-CEs on the Wits clinical education platform.

The whole population of final year OTSs was invited to participate in the evaluation of each of their three or four completed clinical education blocks.

7.1.4.3 **Research process**

There were two components to the research process in this cycle.

The first was to pilot the inexperienced OT-CE training programme, which had been developed in Cycle 2 on a select sample of inexperienced OT-CEs, and measure the participants' OT-CE knowledge and skill before, and then again after the training programme. Participants within the sample were also asked to evaluate the training programme relative to the training objectives that had been set.

The second was to evaluate students' experiences of their clinical education by the OT-CE who had completed the training.

<u>Piloting of the inexperienced OT-CE training programme</u>

The heads of the selected clinical education sites were contacted and invited to participate in the research. On agreement each clinical head was forwarded an information sheet outlining the research aims and objectives (See Appendix G: 3). They were requested to invite members of their staff who considered themselves to be

inexperienced OT-CEs (who had been responsible for the clinical education of OTSs in past but felt inexperienced, or who were likely to become an OT-CE of their first OTS within the next six months) to participate in the study. Names of staff members who were willing to participate in the study were emailed to the academic OTD's secretary who emailed them the information sheet detailing the research process, the nature of the participation expected of them, together with the times and venue for the training (See Appendix G: 4).

On Day 1 of the OT-CE training programme the attending participants were informed of the purpose of this cycle of the research by the researcher and were given a summary of the research completed thus far.

The research assistant reviewed all the ethical aspects from the information sheet with the participants (that their participation was voluntary; that they could withdraw at any point during the training without consequence and that their information was completely confidential). Each participant was given a pre-prepared envelope which contained the consent form, the pre-and post-training OT-CE skill-set questionnaires (printed on green and white paper respectively) (see Appendix G:6 and G;7) plus the OT-CE training evaluation form (printed on pink paper). She asked the participants to pencil their name lightly on the envelope, complete the consent form (See Appendix G: 5) and the pre training OT-CE skill-set questionnaire and return both to the envelope and seal it. All envelopes were returned to the research assistant for safekeeping.
The six sessions of the training programme were completed as set out in the training programme described in Cycle 2 and set out in Table 7.4 detailing the micro–curriculum for inexperienced OT-CEs and the Training programme in Table 7.5.

In the wrap up session on Day 2 of the training programme the research assistant returned the envelopes containing the consent forms and OT-CE skill-set questionnaires to the participants. She requested that the participants complete the remaining two documents: the post training OT-CE skill-set questionnaire as well as the training programme evaluation. Participants were asked to erase their names from the envelopes and seal them. After the second session of training was complete, all the envelopes were given to the departmental secretary who organised the questionnaires

and evaluation forms (see Appendix G:8) into a file in preparation for data analysis. Thus the researcher was completely blinded to OT-CEs' responses.

Between the two training sessions the researcher and research assistant adjusted the training timetable slightly to accommodate for the sessions that seemed to facilitate more discussion and adapted some of the practical work so that it was appropriate to the field of practice in which the OT-CE participants worked. For example in the first session of training there were more OT-CEs who worked in clinical sites on the primary platform so the clinical evaluation forms, clinical education block outcomes and the scenarios used in the practical work were pertinent to their specific clinical education responsibilities. However, in the second training the participants were working in more traditional physical and psychiatric occupational therapy contexts and thus the documentation and practical scenarios pertinent to these fields were used. In all other respects the two training programmes were identical.

Students' experience of their clinical education

Just prior to the mid-year vacation all final year OTSs were invited to participate in the research. The researcher explained the research that had been completed to date, the specific aims, and objectives, and what their participation in this specific cycle of research would entail. Since it is routine for students to confidentially evaluate their clinical education they have received in each block on an evaluation form this was not an unusual activity for them.

Those students who agreed to participate were given the information sheet but were not asked to complete a consent form, as completion of the forms was taken as consent (See Appendix G: 8). Each student participant was asked to complete one evaluation form for each block of Clinical education that they had completed during the year. Some students had completed only three blocks while other had completed four. Although all forms were identical they were asked to complete forms in different colours (Block 1 green; Block 2 blue; Block 3 yellow and Block 4 pink) so as to try to identify clinical education blocks before and after the training. The fourth class representative was asked to collect all the completed forms and hand them to the departmental secretary who filed them according to colour in preparation for data processing.

7.1.4.4 **Data collection tools**

Three different instruments were used to collect the data for this cycle of research.

The pre- and post-course questionnaire

The OT-CE skill-set questionnaire that was developed and described in Chapter 6 was adjusted to collect the data in Cycle 3. In the pre-course questionnaire the following changes were made. In Section 1 Items 1.6 (Sector in which you work) and 1.11 (Indicate the term which best describes you, based on your experience of clinical education) were deleted as the sample was selected from the Public Health Sector only and the inclusion criterion was OT-CEs who perceived themselves to be inexperienced. The option ranges of items 1.1, 1.4, 1.7 were reduced in keeping with an inexperienced OT-CE. In Section 2 only knowledge and the skill items that were agreed to be consistent with a inexperienced level training in Cycle 1 were included. The values section remained unchanged. (See Appendix G:6). The post-course questionnaire had no Section 1 and only Section 2 was completed (See Appendix G: 7).

This specific questionnaire was used so as to measure any change in the participants' rating of their perceived knowledge, skill and attitude to clinical education prior to and after the inexperienced OT-CE training programme. The use of this questionnaire also allowed comparison to be made to previously collected data about inexperienced OT-CEs knowledge, skill and values about clinical education that was described in Chapter 6.

The inexperienced OT-CE training evaluation form

The OT-CE training evaluation was developed from the course objectives listed in Table 7.5. Each objective was measured on two three-point scales which related to the usefulness of the information and the extent to which it was covered in the course. See Appendix G: 8 for a copy of this evaluation form.

The student clinical evaluation form

This OTS evaluation form was also developed from the Inexperienced OT-CE training objectives and expected outcomes of the training. The form had no identifying information or code for the student to complete. It did require students to record the name of the clinical education block (Mental Health, Public Health: Urban etc.) and the

name of the OT-CE. This was only to identify which students were supervised by inexperienced OT-CEs who had completed the training.

Students were required to rate items on a three point scale: Yes, Sometimes, No.

Items related to: OT-CEs knowledge of the students' classroom knowledge and what they still needed to learn clinically; How the OT-CE helped them to learn in the clinical setting; The use of the learning contract; Evaluation of the students' performance; Giving of feedback; How problems in the clinical education block were identified and resolved; and Organisation of the clinical education process (See Appendix G: 9). As mentioned previously students were required to complete the evaluation forms on different coloured paper reflecting the order in which the clinical education blocks had been completed. This was to identify if clinical education blocks had been completed before or after the training.

While the evaluation of their clinical education in the context of this research was very structured, OTSs routinely evaluate the clinical education after all clinical education blocks. This is always written and confidential and follows a less structured guideline, but essentially addresses the same issues. There was a section for comments and suggestions specifically what they consider was good in the block; what challenges they encountered in the block; and what could be improved. The OTSs' feedback is collated and given to the clinical departments either annually or twice during the year by the university clinical educators and no individual OTS can be identified. The OTD has uses this process as a very informal quality assurance check and to identify and manage specific problems in some clinical education sites.

7.1.4.5 **Data analysis**

Biographical data

The biographical data collected were descriptively analysed to describe central tendencies within samples (means, modes and frequencies) as well as the variability by examining the ranges of some variables [303].

Pre and post clinical education training questionnaires

As the sample number was small (less than 25) non-parametric inferential statistics were used to analyse the data on a continuous ordinal scale for the pre- and post-training questionnaires. As the two cohorts within the sample were also not uniformly distributed and therefore median and quartile ranges were used instead of means [303, 404]. As the numbers in all of the five options on the ordinal scale were very low the scale was collapsed as follows: ratings of excellent and good knowledge/skills were classed as good, (representing knowledge and skill ≥ 60% by participant's as described in Chapter 6. Some, little and no knowledge/skills options were grouped as inadequate knowledge/ skill representing knowledge and skill below the 60% cut-off point. Rating frequencies were calculated for each variable within each section of the questionnaire using STATISTICA version 12. The Wilcoxon sign rank test was used to determine if there was any statistical difference between the before and after training scores.

During the data analysis it was noted that the scores on the pre training questionnaire were quite low in comparison to the scores attained by the sample of inexperienced OT-CEs in the skill-set sample. The scores were therefore compared to establish if there was any difference between the two samples. Participants' evaluation of the clinical educators training programme scored were generally slightly lower but overall this was not significant.

Descriptive statistics were used to analyse all the data collected from the evaluation of the clinical education training programme. Again as the sample was also not uniformly distributed the median and quartile ranges were used instead of means [303, 404]. The scores were coded as follows: 3=very useful information, 2=useful information and 1=not useful information and 3=just enough information, 2=too much information and 1=not enough information. The comments recorded by some of the participants were organised into remarks and comments that would need to be considered in the final cycle of the action research.

The students' evaluation of clinical education post training

The sample of this survey was divided into two groups: students who had received clinical education from OT-CEs who had been trained, and students who had received clinical education from those that had not been trained. Descriptive statistics were used

to analyse the data collected. Again, as the sample was also not uniformly distributed the median and quartile ranges were used instead of means [303, 404]. The scores were coded as follows: 3=yes, 2=sometimes and 1=no. The scores of the two groups were compared and the Mann-Whitney U Test was used to determine if there was a significant difference between the groups. The comments recorded by some of the participants were organised into 3 sections: positive remarks about their clinical education, mixed remarks (both positive and negative) and negative remarks.

7.1.4.6 **Results**

Demographics of the participants

Twenty three inexperienced OT-CEs attended the OT-CE training programme. One participant attended only one and half of the two day training and her data were therefore not included in the results, therefore the sample size was 22 participants.

Twenty of the participants were female (90.9%) and two were males (8.1%). The age distribution of the participants can be seen in Figure 7.9. The racial distribution of participants was as follows: eight were Indian, two were coloured, two were black and the remainder were white.

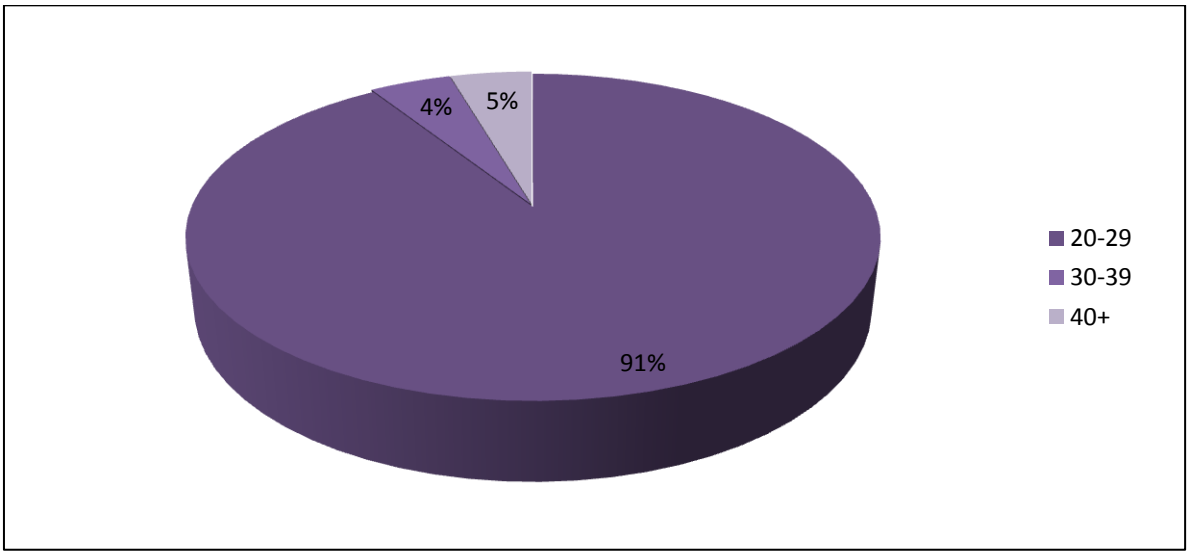


Figure 7.8: Age Distribution of Participants

The university at which participants completed their undergraduate education can be seen in Figure 7.10. Four participants indicated that they had a postgraduate qualification.

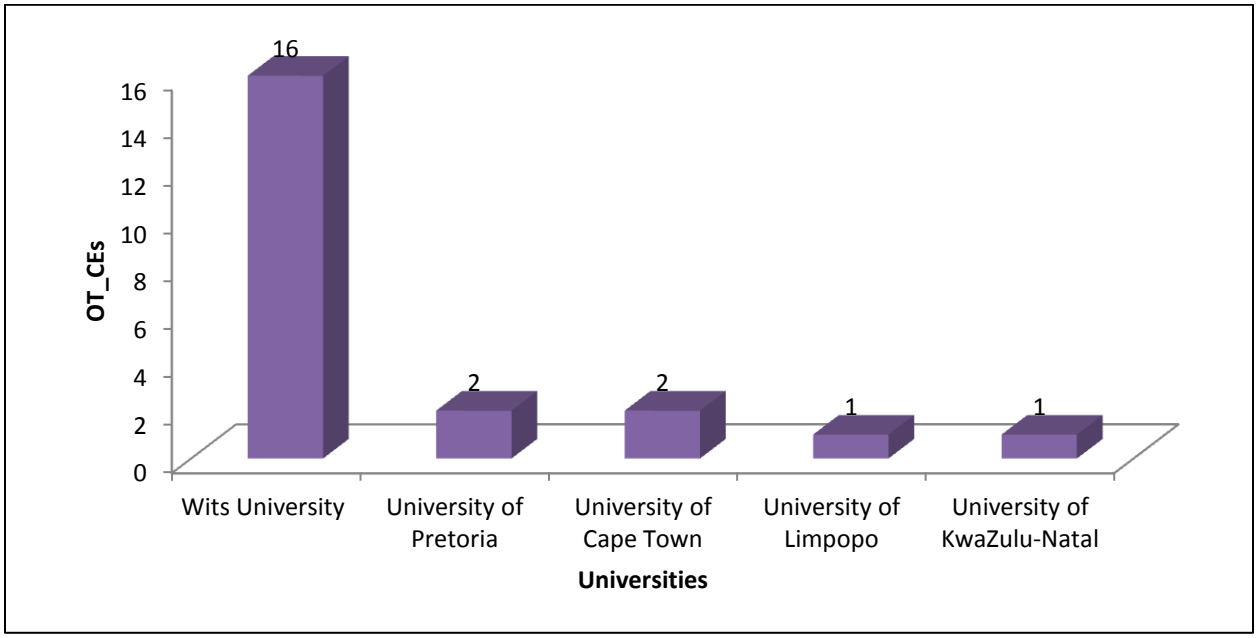


Figure 7.9: University where Participants Completed Undergraduate Education

Four of the participants had less than 6 months of clinical experience (18.2%), one less than a year (4.5%) and all were employed in community service posts. Three participants had between one and two years of experience (13.6%), but most had had over two years of experience (n=14 63.6%). Sixteen were employed in Production level posts (72.7%) and one in a Chief post (4.5%). Eleven were employed in academic hospitals (55%), five in secondary/district hospitals (22.7%), and five in clinics on the primary care platform (22.7%). One participant did not complete this question.

Figure 7.10 reports on the fields of practice in which the participants worked, with equal numbers working in the psychiatric and physical field of practice only (7 31.8%), and the rest contributing to several fields of practice which is typical of occupational therapy practice on the primary platform.

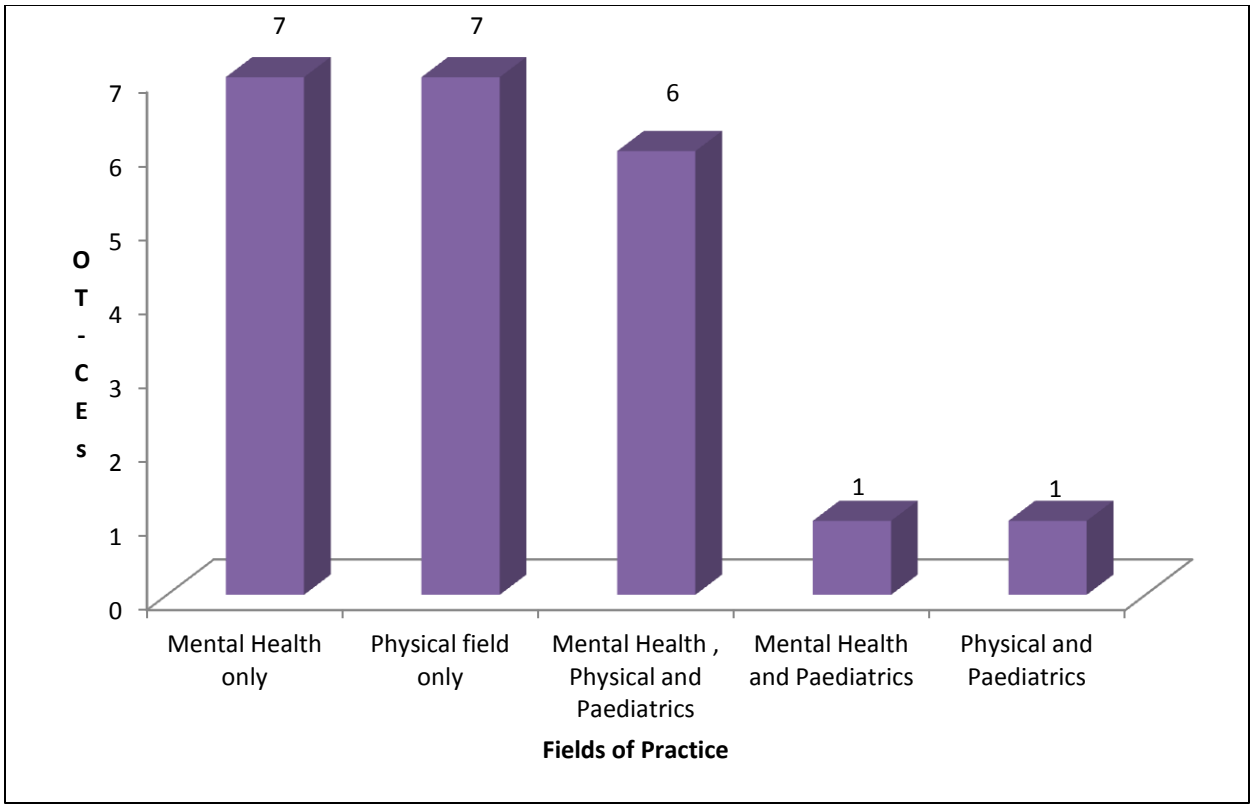


Figure 7.10: Fields of Practice in which Participants Worked

Participants reported responsibility for 59 OTSs in the previous year. The number of OTSs per participants is reported in Figure 7.11. The majority of the participants (81.8%) had limited experience of clinical education, having managed four or less OTSs, but one participant had been responsible for ten OTSs. Twelve participants had been responsible for final year students only, five for third years OTSs, one for second years and two for first year OTSs.

Fifteen of the participants indicated that they had attended one or more clinicians workshops in the previous year and three indicated that they had attended an occupational therapy related course, workshop or conference that had contributed to their clinical education knowledge.

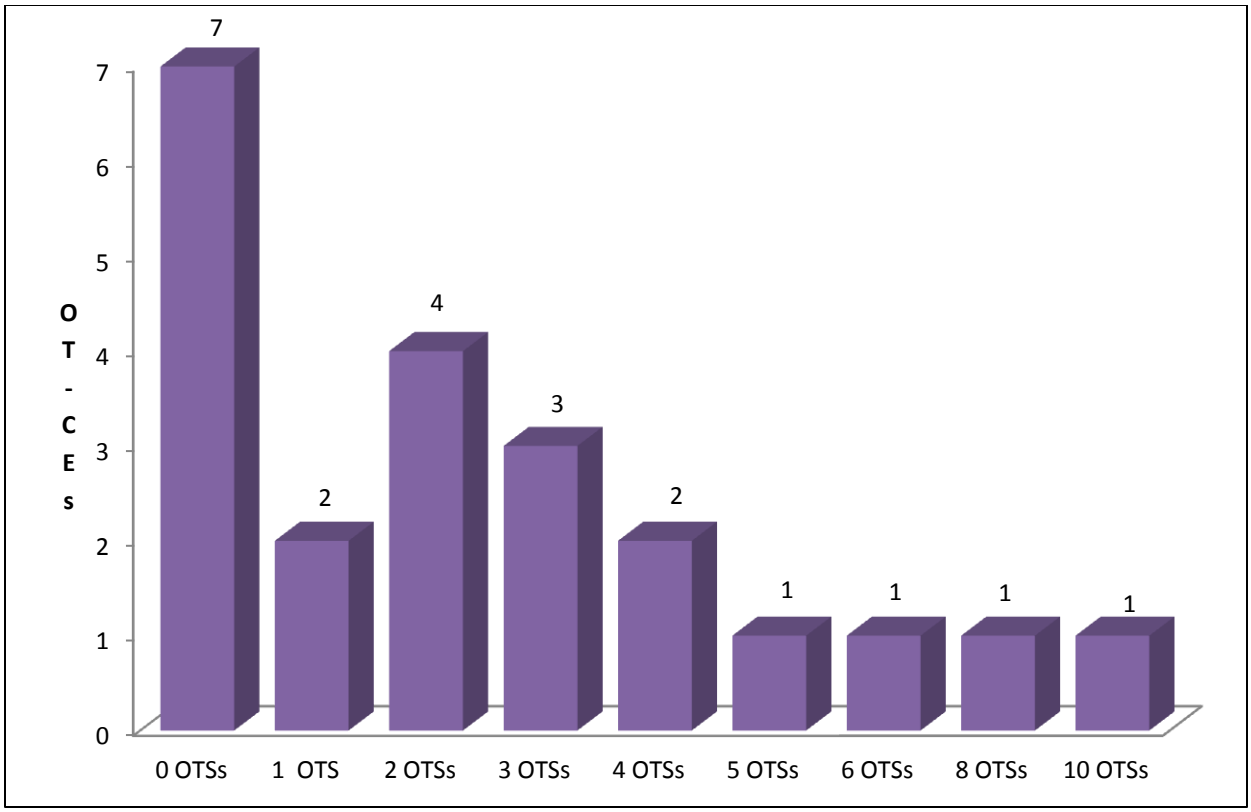


Figure 7.11: Number of OTSs Participants had Supervised in the Previous Year

OT- CE knowledge pre- and post-OT-CE training

The frequencies of participants' ratings of their perceived knowledge of clinical education before and after the OT-CE training programme are recorded in Table 7.6. There were 5 variables that were not completed by one participant; three did not assign an answer in the pre-training questionnaire; and two in the post-training questionnaire. Two participants did not complete the variable 'How to accommodate different learning styles in clinical education' in the post-training questionnaire.

As can be seen from Table 7.7, the highest frequency ratings of knowledge of clinical education prior to the training fell below the 60% cut-off indicating that they rated their knowledge on these variables as: none, limited or only some knowledge of clinical education. These three rating variables were grouped together and classified as inadequate knowledge. However, the post training ratings were all above the 60% cut-off, indicating that most participants perceived their knowledge of the variables to be either good or excellent, with most in the range of 72 and 100%.

Table 7.7: Knowledge Variables Pre- and Post-Training

Knowledge Variable	Total Number	Pre- Training Frequency		Post-Training Frequency		P Value Pre vs Post ≥60%
		<60%	>60%	<60%	>60%	
HPCSA Minimum standards of training of occupational therapy students	43	95.4% (n=21)	4.6% (n=1)	19,1% (n=4)	80.9% (n=17)	0.000
Exit level outcomes for the Wits BSc OT course	43	72.7% (n=16)	27.3% (n=6)	4.8% (n=1)	95.2% (n=20)	0.000
Wits Educational philosophy that supports the curriculum	44	86.4% (n=19)	13.6% (n=3)	9.1% (n=2)	90.9% (n=20)	0.000
Principles of Problem Based Learning (PBL)	44	54.6% (n=12)	45.4% (n=10)	13.6% (n=3)	86.4% (n=19)	0.001
How to teach using PBL in the clinical setting	44	90,9% (n=20)	9.1% (n=2)	4.4% (n=1)	95.6 (n=21)	0.000
How students learn	44	81.8% (n=18)	18.2% (n=4)	9.1% (n=2)	90.9% (n=20)	0.000
Different learning styles	44	68.2% (n=15)	31.8% (n=7)	22.7% (n=5)	77.3% (n=17)	0.005
How to accommodate different learning styles in clinical education	42	81.8% (n=18)	18.2% (n=4)	45% (n=9)	55% (n=11)	0.002
Responsibilities of the following within clinical education:						
Students	44	63.6% (n=14)	36.6% (n=8)		100% (n=22)	0.000
University educators	44	68.2% (n=15)	31.8% (n=7)		100% (n=22)	0.000
Clinical educators	44	63.6% (n=14)	36.4% (n=8)		100% (n=22)	0.000
Relief clinical educators	43	100% (21)		18.2% (n=4)	81.8% (n=18)	0.000
Placement managers	44	100% (22)		13.6% (n=3)	86.4% (n=19)	0.000
Responsibilities attached to the roles of the clinical educator:						
Manager	44	86.4 (n=19)	13.6% (n=3)	13.6% (n=3)	86.4% (n=19)	0.000
Administrator	44	90,9% (n=20)	9.01% (n=2)	13.6% (n=3)	86.4% (n=19)	0.000
Role model	44	77.3% (n=17)	22.7% (n=5)	9.1% (n=2)	90.9% (n=20)	0.000
Teacher	44	77.3% (n=17)	22.7% (n=5)	4.5% (n=1)	95.5% (n=21)	0.000
Evaluator	44	86.4 (n=19)	13.6% (n=3)	4.5% (n=1)	95.5% (n=21)	0.000
Models of clinical education	44	90,9% (n=20)	9.1% (n=2)	31.8% (n=7)	68.2% (n=15)	0.000
Models of professional development of students	44	90,9% (n=20)	9.1% (n=2)	4.5% (n=1)	95.5 (n=21)	0.000
Clinical education process	44	81.8% (n=18)	18.2% (n=4)	13.6% (n=3)	86.4% (n=19)	0.000
Development of a professional identity in students	44	81.8% (n=18)	18.2% (n=4)	18.2% (n=4)	81.8% (n=18)	0.000
Development of clinical reasoning in students	44	90,9% (n=20)	9.1% (n=2)	9.1% (n=2)	90.9% (n=20)	0.000

Knowledge Variable	Total Number	Pre- Training Frequency		Post-Training Frequency		P Value Pre vs Post ≥60%
		<60%	>60%	<60%	>60%	
Clinical education contracts with students	44	95.4% (n=21)	4.6% (n=1)	9.1% (n=2)	90.9% (n=20)	0.000
Clinical education relationship with students	44	72.7% (n=16)	27.3% (n=6)	13.6% (n=3)	86.4% (n=19)	0.000
Power factors in the clinical education relationship	44	95.4% (n=21)	4.6% (n=1)	13.6% (n=3)	86.4% (n=19)	0.000
Formative and summative evaluations	44	81.8% (n=18)	18.2% (n=4)	13.6% (n=3)	86.4% (n=19)	0.000
Giving students constructive feedback to facilitate learning	43	57.2% (n=12)	42.8% (n=9)	9.1% (n=2)	90.9% (n=20)	0.001
Facilitation styles to encourage and motivate students	44	68.2% (n=15)	31.8% (n=7)	9.1% (n=2)	90.9% (n=20)	0,000
Factors which influence the nature and quality of clinical education	44	81.8% (n=18)	18.2% (n=4)	9.1% (n=2)	90.9% (n=20)	0.000
Factors/behaviours that identify the:						
At risk student	44	72.7% (n=16)	27.3% (n=6)		100% (n=22)	0.000
Failing student	44	72.7% (n=16)	27.3% (n=6)		100% (n=22)	0.000
Factors/behaviours that identify students with different:						
Levels of knowledge	44	72.7% (n=16)	27.3% (n=6)	4.5% (n=1)	95.5% (n=21)	0.000
Levels of motivation	44	68.2% (n=15)	31.8% (n=7)	13.6% (n=3)	86.4% (n=19)	0.001
Levels of ability	44	68.2% (n=15)	31.8% (n=7)	4.5% (n=1)	95.5% (n=21)	0.000
Factors/behaviours that identify students that have:						
Learning Disability	43	77.3% (n=17)	22.7% (n=5)	42.8% (n=9)	57.2% (n=12)	0.000
Illness which comprises learning	44	72.7% (n=16)	27.3% (n=6)	27.3% (n=6)	72.7% (n=16)	0.000
Personal crises which comprises learning	44	63.6% (n=14)	36.4% (n=8)	18.2% (n=4)	81.8% (n=18)	0.000
Poor coping skills	44	59% (n=13)	41% (n=9)	9.1% (n=2)	90.9% (n=20)	0.000
Difficult / challenging behaviour	44	72.7% (n=16)	27.3% (n=6)	13.6% (n=3)	86.4% (n=19)	0.000
How to be a good role model	44	59.1% (n=13)	40,9% (n=9)	13.6% (n=3)	86.4% (n=19)	0.000
How to assist students to translate their theory into practice	44	63.6% (n=14)	36.4% (n=8)	4.5% (n=1)	95.5% (n=21)	0.000
Ethical and legal aspects of clinical education	44	72.7% (n=16)	27.3% (n=6)	18.2% (n=4)	81.8% (n=18)	0.000

Significance p≤ 0.05 * p≤ 0.005** p≤ 0.0005***

There were five variables where all participants rated their knowledge as excellent. These are marked in green on Table 7.7. There were only three variables were the post-

training frequency was lower than the 70%: ‘How to accommodate differ learning styles in clinical education’ at (55%; n=11) and ‘Factors/behaviours that identify that a student has a learning disability’ (57.2%; n=12) and ‘Models of Clinical Education’ (68.2%; n=15). These are marked in blue on Table 7.6. All variables recorded a significant difference between the pre- and post-training ratings on knowledge of clinical education ranging from p=0.000 to p=0.005.

It was noted that the knowledge ratings of the OT-CE training sample were lower than those of the inexperienced skill-set sample but overall these were not significant.

OT-CE skill pre and post OT-CE training

The frequencies of participants’ ratings of their perceived skill in clinical education before and after the OT-CE training programme are recorded in Table 7.8. On all but five of the skill variables the participants’ ratings of their pre-course skills fell below the 60% cut off indicating that within this cohort most participants perceived their skill in clinical education to be inadequate (none, limited or poor). The five variables in which most participants rated their skill as adequate were: ‘Identifying clients for students and gaining their consent’ (68.2%; n=15); ‘Identifying clinical education opportunities for students learning’ (63.6%; n=14); ‘Coping with students with different motivation’ (68.2%; n=15) and ‘Levels of ability’ (63.6%; n=15) and ‘Preventing burnout’ (81.8%; n=18). These variables are marked in yellow on Table 7.8. The rating on all variables showed an increase in the frequency of ratings of adequate skill (above the 60% cut-off) in the range 60% to 100% although most frequencies were over 70%. The variable ‘Assessing and accommodating to student’s learning styles’ and ‘Coping with the failing student’ had the lowest frequency above the 60% cut-off (marked in blue on Table 7.8). However, there were two variables where all participants rated their skill as excellent ‘Role-modelling professional behaviours and skills’ and ‘Developing and maintaining clinical education relationship’. These variables are marked in green on Table 7.8.

Table 7.8: Skill Variables Pre- and Post-Training

Skill Variable	Total Number	Pre- Training Frequency		Post Training Frequency		P Values Pre vs Post ≥60%
		<60%	>60%	<60%	>60%	
Using PBL in the clinical setting	44	81.8% (n=18)	18.2% (n=4)	18.2% (n=4)	81.8% (n=18)	0.000
Facilitating students' learning	44	63.6 (n=14)	36.4% (n=8)	27.3% (n=6)	72.7% (n=16)	0.002
Assessing and accommodating to students' learning styles	44	81.8% (n=18	18.2% (n=4)	50% (n=11)	50% (n=11)	0.001
Accommodate different learning styles when teaching	44	77,3% (n=17)	22.7% (n=5)	36.4% (n=8)	63.6% (n=14)	0.000
Identifying clients for students and gaining their consent	44	31.8% (n=7)	68.2% (n=15)	9.1% (n=2)	90.9% (n=20)	0.023
Identifying educational opportunities and activities for students' learning	44	36.4% (n=8)	63.6% (n=14)	9.1% (n=2)	90.9% (n=20)	0.007
Collaborating with university educators	43	61.9% (n=13)	38.1% (n=8)	4.5% (n=1)	95.5% (n=21)	0.000
Learning and gaining support from other OT-CEs		59.1% (n=13)	40.9% (n=9)			
Briefing relief clinical educators	43	85.7% (n=18)	14.3% (n=3)	36.4% (n=8)	63.6% (n=14)	0.000
Collaborating with placement senior /OT managers to promote clinical education	44	77,3% (n=17)	22.7% (n=5)	18.2% (n=4)	81.8% (n=18)	0.000
Executing the roles of the clinical educator:						
Managing the student learning process	44	72.7% (n=16)	27.3% (n=6)	18.2% (n=4)	81.8% (n=18)	0.000
Administration of clinical education	44	68.2% (n=15)	31.8% (n=7)	4.5% (n=1)	95.5% (n=21)	0.000
Role-modelling professional behaviours and skills	44	54.5% (n=12)	45.5% (n=10)	0 (n=0)	100% (n=22)	0.002
Teaching and promoting self directed learning in students	44	72.7% (n=16)	27.3% (n=6)	4.5% (n=1)	95.5% (n=21)	0.000
Consulting with respect to clinical education	44	81.8% (n=18	18.2% (n=4)	13.6% (n=3)	86.4% (n=19)	0.000
Evaluator	44	81.8% (n=18	18.2% (n=4)	22.7% (n=5)	77.3% (n=17)	0.000
Using the models of clinical education	44	68.2% (n=15)	31.8% (n=7)	27.3% (n=6)	72.7% (n=16)	0.000
Identifying and facilitating the different stages of professional development of students in clinical education	44	90.9% (n=20)	9.09 (n=2)	31.8% (n=7)	68.2% (n=15)	0.000
Facilitating the clinical education process	44	77,3% (n=17)	22.7% (n=5)	18.2% (n=4)	81.8% (n=18)	0.000
Facilitating the development of a professional identity in students	44	72.7% (n=16)	27.3% (n=6)	27.3% (n=6)	72.7% (n=16)	0.000
Developing clinical reasoning in students	44	63.6% (n=14)	36.4% (n=8)	13.6% (n=3)	86.4% (n=19)	0.000
Developing and implementing clinical education contracts	44	54.5% (n=12)	45.5 (n=10)	9.1% (n=2)	90.9% (n=20)	0.000
Developing and maintaining a clinical education relationship	44	68.2% (n=15)	31.8% (n=7)	0 (n=0)	100% (n=22)	0.000
Managing the power factors in the	44	72.7%	27.3%	27.3%	72.7%	0.001

Skill Variable	Total Number	Pre- Training Frequency		Post Training Frequency		P Values Pre vs Post ≥60%
		<60%	>60%	<60%	>60%	
clinical education relationship		(n=16)	(n=6)	(n=6)	(n=16)	
Observing students for formative and summative evaluations	44	72.7% (n=16)	27.3% (n=6)	27.3% (n=6)	72.7% (n=16)	0.001
Giving students constructive feedback to facilitate learning	44	59.1% (n=13)	40.9% (n=9)	13.6% (n=3)	86.4% (n=19)	0,001
Completing the student evaluation form to facilitate positive learning experiences	44	63.6% (n=14)	36.4% (n=8)	9.1% (n=2)	90.9% (n=20)	0.001
Evaluating and allocating marks to:						
Case reports	43	57.1 (n=12)	42.86% (n=9)	9.1% (n=2)	90.9% (n=20)	0.001
Case presentations	43	61.9% (n=13)	38.1% (n=8)	18.2% (n=4)	81.8% (n=18)	0.001
Treatment demonstrations	43	57.1% (n=12)	42.9% (n=9)	18.2% (n=4)	81.8% (n=18)	0.004
Block of Clinical education	43	52.4% (n=11)	47.6% (n=10)	13.6% (n=3)	86.4% (n=19)	0.002
Using different facilitation styles to encourage and motivate students	44	77,3% (n=17)	22.7% (n=5)	27.3% (n=6)	72.7% (n=16)	0.001
Identifying and managing factors which influence the nature and quality of clinical education	42	66.7% (n=14)	33.3% (n=7)	23.8% (n=5)	76.2% (n=16)	**0.000**
Coping with the:						
At risk student	44	72.7% (n=16)	27.3% (n=6)	31.8% (n=7)	68.2% (n=15)	0.000
Failing student	44	72.7% (n=16)	27.3% (n=6)	40.9% (n=9)	59.1% (n=13)	0.001
Coping with students with different						
Levels of knowledge	43	47.6% (n=10)	52.4% (n=11)	22.7% (n=5)	77.3% (n=17)	0.004
Levels of motivation	44	31.8% (n=7)	68.2% (n=15)	18.18% (n=4)	81.82% (n=18)	0.000
Levels of ability	44	36.4% (n=8)	63.6% (n=15)	18.18% (n=4)	81.82% (n=18)	0.000
Coping with students that have:						
Disability	42	80.9% (n=17	19.1% (n=4)	38.1% (n=9)	61.9% (n=13)	0.000
Illness	44	77,3% (n=17)	22.7% (n=5)	27.3% (n=6)	72.7% (n=16)	0.000
Personal crises	44	68.2% (n=15)	31.8% (n=7)	31.8% (n=7)	68.2% (n=15)	0.000
Poor coping skills	44	72.7% (n=16)	27.3% (n=6)	27.3% (n=6)	72.7% (n=16)	0.000
Difficult/ challenging behaviour	44	72.7% (n=16)	27.3% (n=6)	27.3% (n=6)	72.7% (n=16)	0.001
Managing your own workload and clinical education	44	54.5% (n=12)	45.5 (n=10)	13.6% (n=3)	86.4% (n=19)	0.013
Preventing burnout	44	18.2% (n=4)	81.8% (n=18)	18.2% (n=4)	81.8% (n=18)	0.001

Skill Variable	Total Number	Pre- Training Frequency		Post Training Frequency		P Values Pre vs Post ≥60%
		<60%	>60%	<60%	>60%	
Dealing with ethical and legal issues	44	59.1% (n=13)	40.9% (n=9)	18.2% (n=4)	81.8% (n=18)	0.011
Levels of knowledge	43	47.7% (n=10)	52.3% (n=11)	22.7% (n=5)	77.3% (n=17)	0.004
Levels of motivation	44	31.8% (n=7)	68.2% (n=15)	18.2% (n=4)	81.8% (n=18)	0.000
Levels of ability	44	36.4% (n=8)	63.6% (n=15)	18.2% (n=4)	81.8% (n=18)	0.000

Significance p≤ 0.05 * p≤ 0.005** p≤ 0.0005***

Again it was noted that the skill ratings of the OT-CE training sample were lower than those of the inexperienced skill-set sample on all but six variables but overall these were not significant.

Attitudes of participants towards clinical education

Attitudes and motivation for being involved in clinical education was only measured before the OT-CE training programme. All twenty two participants indicated that they really liked to teach students; they wanted to teach students so that they have good clinical skills and they believed it was their professional responsibility *'I have always enjoyed teaching especially because I believe it has a huge influence on the student's future in the profession*' and '*Being part of another student's education is a privilege'*. The other two were personally orientated: '*To extend my professional scope and knowledge' and 'To reduce the workload'*.

Fourteen participants (63.6%) indicated that they worked in an academic hospital and therefore clinical education of OTSs was part of their job. Twenty one participants answered no to the question 'Is clinical education an expectation but a responsibility that you do not want?' suggesting that 95.4% of the participants were positive about clinical education. One participant did not answer this question. Eighty two percent of the participants (n=18) responded that clinical education was a means to keep up to date and one participant failed to answer the question. Only 22.7% of the sample felt that clinical education was a means to identify and recruit future staff, again one participant did not answer the question.

Participant evaluation of the training programme

All 22 participants completed the evaluation of the clinical educators training questionnaire at the end of the training programme. The results are recorded in Table 7.9.

All participants recorded comments for each of the variables relating to the content of the training programme except the variable concerning dealing with ill students which a single participant did not complete. The median for all variables was 3.00 and there were no variables which participants considered to be not useful. Thirteen variables were rated as being useful and 20 were rated as very useful.

Not all participants rated the variables in the amount of information included in the OT-CE training programme section of the questionnaire. No variable was completed by all 22 participants and the response rate varied between 19 and 21 participants. There were three variables where some participants felt there was too much information and four variables where some felt there was insufficient information. These items have been marked in blue and green respectively. The variables where some participants felt there was too much information were: 'PBL', 'Facilitating clinical reasoning' and 'Professional values'. The first variable where participants felt there was insufficient information in the training programme related to the 'Development of professional identity', and the remaining three related to 'Problem students'.

Table 7.9: Participant Evaluation of OT-CE Training Programme

	Evaluation of OT-CE Training Programme Contents			Evaluation of the Amount of Information in the OT-CE Training Programme		
	Median	**Lower Quartile Range**	**Upper Quartile Range**	**Median**	**Lower quartile range**	**Upper quartile range**
Producing clinically competent graduates						
Introduction to the Wits course	3.00 (n=22)	2.00	3.00	3.00 (n=20)	3.00	3.00
Clinical education partnerships	3.00 (n=22)	3.00	3.00	3.00 (n=21)	3.00	3.00
Models of clinical education	3.00 (n=22)	2.00	3.00	3.00 (n=21)	3.00	3.00
Legal/ ethical consideration	3.00 (n=22)	2.00	3.00	3.00 (n=21)	3.00	3.00
How students learn						
Learning as a concept	3.00 (n=22)	2.00	3.00	3.00 (n=19)	3.00	3.00
PBL	3.00 (n=22)	2.00	3.00	3.00 (n=21)	2.00	3.00
Learning of knowledge	3.00 (n=22)	3.00	3.00	3.00 (n=19)	3.00	3.00
Learning of skill	3.00 (n=22)	3.00	3.00	3.00 (n=19)	3.00	3.00
Learning professional values	3.00 (n=22)	3.00	3.00	3.00 (n=20)	3.00	3.00
CE-OTS relationship	3.00 (n=22)	3.00	3.00	3.00 (n=19)	3.00	3.00
Clinical context that supports learning	3.00 (n=22)	2.00	3.00	3.00 (n=20)	3.00	3.00
Helping students learn						
Facilitating clinical reasoning	3.00 (n=22)	3.00	3.00	3.00 (n=20)	2.00	3.00
Facilitating professional identity	3.00 (n=22)	3.00	3.00	3.00 (n=20)	1.00	3.00
Facilitating professional values	3.00 (n=22)	3.00	3.00	3.00 (n=20)	2.00	3.00
Learning contracts						
Setting up	**3.00 (n=22)**	**3.00**	**3.00**	**3.00 (n=20)**	3.00	**3.00**
Value/challenges	**3.00**	**2.00**	**3.00**	**3.00 (n=20)**	3.00	**3.00**
How to evaluate students						
Terminology	**3.00 (n=22)**	**3.00**	**3.00**	**3.00 (n=20)**	3.00	**3.00**
Types of evaluations	**3.00 (n=22)**	**3.00**	**3.00**	**3.00 (n=20)**	3.00	**3.00**
Guidelines for assessment and evaluation	3.00 (n=22)	3.00	3.00	3.00 (n=20)	3.00	**3.00**
How to give feedback						

	Evaluation of OT-CE Training Programme Contents			Evaluation of the Amount of Information in the OT-CE Training Programme		
	Median	**Lower Quartile Range**	**Upper Quartile Range**	**Median**	**Lower quartile range**	**Upper quartile range**
Value of feedback to learning	3.00 (n=22)	3.00	3.00	3.00 (n=20)	3.00	3.00
Types	3.00 (n=22)	2.00	3.00	3.00 (n=21)	3.00	3.00
Guidelines for giving feedback	3.00 (n=22)	3.00	3.00	3.00 (n=20)	3.00	3.00
Problem students						
Description of problem students	3.00 (n=22)	3.00	3.00	3.00 (n=19)	3.00	3.00
Characteristics of failing/at-risk students	3.00 (n=22)	3.00	3.00	3.00 (n=19)	3.00	3.00
How to deal with failing/at-risk students	3.00 (n=22)	3.00	3.00	3.00 (n=21)	1.00	3.00
Ill students	3.00 (n=21)	2.00	3.00	3.00 (n=20)	1.00	3.00
Students with personal crises/poor coping	3.00 (n=22)	3.00	3.00	3.00 (n=20)	1.00	**3.00**
Making clinical education work for you in your busy day						
Getting prepared	3.00 (n=22)	3.00	3.00	3.00 (n=19)	3.00	3.00
Selecting patients/clients	3.00 (n=22)	2.00	3.00	3.00 (n=21)	3.00	3.00
Time for assessment, evaluation, measurement feedback	3.00 (n=22)	2.00	3.00	3.00 (n=20)	3.00	3.00
Final evaluation and feedback	3.00 (n=22)	2.00	3.00	3.00 (n=20)	3.00	3.00
Wrap up	3.00 (n=22)	2.00	3.00	3.00 (n=20)	3.00	3.00
Critical reflection	3.00 (n=22)	2.00	3.00	3.00 (n=20)	3.00	3.00

Significance p≤ 0.05 * p≤ 0.005** p≤ 0.0005***

Comments on the OT-CE training programme

Fifteen participants recorded responses to the comments item.

The participants felt the following would be useful to include in the training programme or be given more emphasis. One participant recommended that Bloom's Taxonomy would be a useful addition to the training programme while another felt the models of clinical education could have been discussed more, although some literature was included in the training manual. More cases on handling difficult OTSs and how to practically help students learn would also appear to be helpful additions. One participant felt more

information on PBL would be helpful to OT-CEs who are not Wits trained. The remaining comments were complimentary and can be found in Table 7.10.

Table 7.10: Comments of Participants on the OT-CE Training Programme

I thoroughly enjoyed this course. I am going to recommend that other clinicians at my hospital attend.
Thank you for the opportunity of being part of this valuable learning experience. My opinion is that most clinicians need more preparation in terms of education to be more effective OT-CEs. This course has provided meaningful information and advice that will ensure a more effective relationship with OTSs and hopefully lead to more efficient and professional graduates. It was an honour to learn from you
Very informative course. The practical sessions were of value. Looking forward to the experience of clinical education. Thank you
I most appreciated understanding the framework/breakdown of the clinical education process. Most useful, informative and worthwhile. Enjoyed the balance of lecture components versus group interaction and review. Your experience and practical discussions highly valued. Thank you
The OT-CE training programme has built my confidence in supervising and being an efficient resource for their learning. Enjoyed the practical sessions-very useful to hear from other therapists. Having a better understanding of Wits requirements and expectations really helpful for supervising students
Thank you! Very informative course. Wits really impressed me.
Training was very helpful and addressed relevant questions pertaining to students practical blocks
It was good that you emphasized that when students are failing it is due to something lacking on their part and not to take it personally.
Useful information that made me calm for my first block of students.
This course was full of helpful information that I will be able to put into practice. It covered a wide variety of topics that will assist me in supervising students. Thank you!
Lovely course! Thank you.
I gained more knowledge on how to evaluate the treatment plan and facilitate the student to translate theory into practice. PBL was also nice to learn and makes it easy to identify problems.
The training has assisted greatly in gaining knowledge on clinical education. Skills learnt can be applied practically. The university requirements assist especially supervisors from different universities. The group discussion helped gain insight from different supervisors/context/experiences. The overall information was helpful.
This has been an extremely rewarding and insightful workshop. Very beneficial practical skills that can and will be used in practice. A MUST for all clinicians supervising students.
Overall a very beneficial and well laid out and structured course.

Student evaluation

Forty-one of the 43 final year OTSs completed 123 questionnaires on the clinical education they had received in the first six months of the academic year following the completion of the pilot study OT-CE training programme. Some students had completed

two clinical education blocks but others had completed four depending on their specific clinical education rotation. The 123 questions were divided into 2 groups those whose OT-CE had received training (n=30) and those where the OT-CE had not received training (n=93).

Table 7.11: Student Evaluation of Clinical Education Post Training

	Student Evaluation of Clinical Education by OT-CE who had been Trained (n=30)			Student Evaluation of Clinical Education by OT-CE who had not been Trained (n=93)			Mann-Whitney U Test
	Median	Lower Quintile Range	Upper Quintile Range	Median	Lower Quintile Range	Upper Quintile Range	P-Value
Your clinical educator							
Understood the Wits course and was clear about what you had been taught in the classroom.	1.00 (n=30)	1.00	1.00	2.00 (n=93)	1.00	2.00	0.002
Understood the requirements of the clinical education block.	1.00 (n=30)	1.00	1.00	1.00 (n=93)	1.00	2.00	0.172
Was clear about what you needed to learn clinically.	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.253
Was clear about her role and responsibilities as an OT-CE.	1.00 (n=30)	1.00	1.00	1.00 (n=93)	1.00	2.00	0.171
Was clear about the role of the university educator.	1.00 (n=30)	1.00	1.00	1.00 (n=93)	1.00	2.00	0.155
Took note of the legal/ ethical considerations of clinical education and informed you of any hospital/safety issues that you needed to be aware of.	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.808
Helped you to understand and enact the role and scope of the profession.	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.352
Agreed with what you had been taught in the classroom.	1.00 (n=30)	1.00	2.00	2.00 (n=93)	1.00	2.00	0.032
Helped you extend your OT knowledge and skill through the use of evidence.	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.277
Your clinical educator							
Understood the concept of teaching and learning in the clinical setting.	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.342
Used the principles of PBL to help you learn in the clinical context.	2.00 (n=30)	2.00	2.00	2.00 (n=93)	1.00	3.00	0.694
Helped your learning by revisiting important classroom knowledge.	1.00 (n=30)	1.00	2.00	2.00 (n=93)	1.00	2.00	0.132

	Student Evaluation of Clinical Education by OT-CE who had been Trained (n=30)			Student Evaluation of Clinical Education by OT-CE who had not been Trained (n=93)			Mann-Whitney U Test
	Median	**Lower Quintile Range**	**Upper Quintile Range**	**Median**	**Lower Quintile Range**	**Upper Quintile Range**	**P-Value**
Helped you to understand how to use your theoretical knowledge clinically as well as the significance of this knowledge.	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.639
Helped you to learn to use the skills clinically that you had been taught in class	2.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.866
Gave you practise opportunities and feedback to help you improve your clinical skills.	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.539
Helped you to learn professional and ethical values	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.590
Was a positive role model.	1.00 (n=30)	1.00	2.00	1.00 (n=92)	1.00	2.00	0.938
Formed a positive CE-OTS relationship with you that promoted your learning.	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.895
Managed the clinical context so that it supported/facilitated learning	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.572
Provided a variety of learning opportunities so you were able to meet the block requirements and outcomes.	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.149
Your clinical educator helped you to learn how to:							
Use clinical reasoning.	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.423
Be reflective about your practice.	2.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.237
Develop your professional identity.	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.621
Practise professional values/ beliefs.	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.310
Did your clinical educator use a learning contract to:							
Guide the learning that needed to be achieved.	1.00 (n=29)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.746
Accommodate your learning needs.	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.548
Your clinical educator evaluated your work:							
Timeously	1.00 (n=30)	1.00	2.00	2.00 (n=92)	1.00	2.00	0.211

	Student Evaluation of Clinical Education by OT-CE who had been Trained (n=30)			Student Evaluation of Clinical Education by OT-CE who had not been Trained (n=93)			Mann-Whitney U Test
	Median	Lower Quintile Range	Upper Quintile Range	Median	Lower Quintile Range	Upper Quintile Range	P-Value
By completing the formal evaluations to assist your learning: Case reports Treatment plans Mid-block evaluation End of block evaluations	1.00 (n=30)	1.00	2.00	1.00 (n=92)	1.00	2.00	0.299
Used the rubrics for assessment and treatment to aid the evaluation.	1.00 (n=30)	1.00	2.00	1.00 (n=92)	1.00	2.00	0.685
In a consistent, fair and realistic manner.	1.00 (n=30)	1.00	2.00	1.00 (n=93)	1.00	2.00	0.576
Feedback: Did your clinical educator							
Understand the importance of feedback to your learning.	1.00 (n=28)	1.00	1.50	1.00 (n=93)	1.00	2.00	0.192
What type of feedback did you receive:							
Written/verbal feedback on cases	1.00 (n=28)	1.00	2.00	1.00 (n=83)	1.00	2.00	0.423
Written/verbal feedback on treatment plans.	1.00 (n=27)	1.00	2.00	1.00 (n=82)	1.00	2.00	0.461
Verbal feedback on practical assessments.	1.00 (n=28)	1.00	2.00	1.00 (n=80)	1.00	2.00	0.232
Verbal feedback on treatment sessions	1.00 (n=27)	1./00	2.00	1.00 (n=80)	1.00	2.00	0.376
Feedback that indicated what had been achieved at mid-term.	1.00 (n=28)	1.00	2.00	1.00 (n=82)	1.00	2.00	0.945
Feedback that indicated what improvements were needed at mid-block	1.00 (n=28)	1.00	2.00	1.00 (n=82)	1.00	2.00	0.615
Achievements at the end of the block	1.00 (n=28)	1.00	2.00	1.00 (n=81)	1.00	2.00	0.832
Give feedback that guided your clinical learning	1.00 (n=28)	1.00	3.00	1.00 (n=92)	1.00	2.00	0.345
If you had a problem during your clinical block:							
Was the problem identified early?	1.00 (n=19)	1.00	2.00	1.00 (n=52)	1.00	2.00	0.217
Did you get the right kind of help/support to resolve the problem?	2.00 (n=17)	1.00	2.00	1.00 (n=53)	1.00	2.00	0.132
Were appropriate accommodations made to help you meet the block outcomes?	1.00 (n=17)	1.00	2.00	1.00 (n=52)	1.00	2.00	0.888

	Student Evaluation of Clinical Education by OT-CE who had been Trained (n=30)			Student Evaluation of Clinical Education by OT-CE who had not been Trained (n=93)			Mann-Whitney U Test
	Median	Lower Quintile Range	Upper Quintile Range	Median	Lower Quintile Range	Upper Quintile Range	P-Value
Did you receive any additional tutoring to help achieve the block requirements?	2.00 (n=17)	1.00	3.00	2.00 (n=53)	1.00	3.00	0.469
Your clinical educator							
Seemed to have prepared for the block before you arrived?	1.00 (n=28)	1.00	2.00	1.00 (n=91)	1.00	2.00	0.413
Orientated you to the department/ working context	1.00 (n=28)	1.00	1.00	1.00 (n=91)	1.00	1.00	0.040
Had selected patients/clients	1.00 (n=28)	1.00	1.50	1.00 (n=91)	1.00	2.00	0.707
Planned sufficient time for: Formative evaluation and feedback.	1.00 (n=28)	1.00	2.00	1.00 (n=91)	1.00	2.00	0.635
Observing assessment and treatment	1.00 (n=28)	1.00	2.00	1.00 (n=91)	1.00	2.00	0.784
Marking written work timeously.	(n=28) 1.00	1.00	2.00	1.00 (n=91)	1.00	2.00	0.638
Formative evaluation and feedback.	1.00 (n=28)	1.00	2.00	1.00 (n=91)	1.00	2.00	0.795
Able to make an appropriate, accurate verbal/written evaluation of your performance that was consistent with the final block mark.	1.00 (n=28)	1.00	2.00	1.00 (n=91)	1.00	2.00	0.394
Wrap up the block with you so that you were clear what had been achieved and what still needed your attention.	1.00 (n=28)	1.00	2.00	1.00 (n=91)	1.00	2.00	0.912
Help you to critically reflect on the learning that took place.	2.00 (n=28)	1.00	2.00	1.00 (n=91)	1.00	2.00	0.382

Significance p≤ 0.05 * p≤ 0.005** p≤ 0.0005***

As can be seen from Table 7.11 there were only three items where a statistically significant difference was found between the two groups: 'Understood the Wits course and was clear about what you had been taught in the classroom' (p=0.002); 'Agreed with what you had been taught in the classroom' (p=0.032); and 'Orientated you to the department/ working context' (p=0.04). In all three cases the group of OTSs who had received clinical education from the group of OT-CEs that had not been trained had a higher mean score: 'Understood the Wits course' and was clear about what you had been taught in the classroom (mean=1.666 versus 1.266); 'Agreed with what you had

been taught in the classroom' (mean=1.602 versus 1.333); and 'Orientated you to the department/ working context' (mean=1.263 versus 1.071).

Student comment on their clinical education

Fifty two OTSs added comments at the end of the questionnaires. Nineteen comments were positive reflecting that they had received excellent clinical education in some sites. These comments are recorded in Table 7.12. Eight OTSs recorded mixed comments which included some positive aspect but were accompanied by some aspect which they felt were not adequate. These are recorded in Table 7.13. Twenty five OTSs recorded negative statements about their clinical education which are recorded in Table 7.14. The nine comments about OT- CEs who had been trained are marked in green. One is very positive, two are mixed and six were negative in nature.

Table 7.12: Positive Comments from Students on Clinical Education Blocks

Students comments of a positive nature on their clinical education blocks	
Quality clinical education	Excellent supervision (4x) The best clinical education that I have received within my 4 years of studying occupational therapy. I learnt so much this block.
Good role-model	Was an enthusiastic and hardworking clinician.
Clinical education process	Well prepared for supervising students. She guided us well and was clear about her expectations from the beginning and was consistent in maintaining these. Prepared for the block and willing to observe (without appointments) and provide assistance. She knew how to help with guiding according to the Wits criteria. Guidance was always available and she had a good understanding of what was expected. OT-CE was a source of information and facilitated my learning with individual tuts Feedback assisted my problem solving and developed my skills as an OT. Feedback was thorough and effective. Effort was given to giving me feedback. The OT-CE was constructive in her feedback. She also has given many learning opportunities (2x). She was on par with what I was expected to do and that helped me appreciate the role of OT.
.OT-CE-OTS relationship	X was easily approachable and has the ability to develop good relationships with OTSs. She was lovely and supportive. Empathetic and supportive while providing constructive feedback. Appeared interested and concerned for our learning. Was enthusiastic and hardworking clinician
Made time	Gave lots of time Always there to assist and facilitate my learning She tried to touch base with us as frequently as she could when she had time. She was helpful in setting out time to assist me with aspects I needed help with i.e. CP Made time to assist with my learning even when I had difficulties they accommodated as far as possible

Table 7.13: Mixed Comments from Students on Clinical Education Blocks

Comments that were both positive and negative in nature	
Experienced supportive/ flexible/ accommodating OT-CE	but had limited knowledge of Wits curriculum (x3). due to her having training from a different university she had difficulty adapting to the Wits terminology. but needed more facilitating of my own critical reflection. but sometimes OT-CEs need to state the obvious to OTSs with regard to departmental logistics because we do not necessarily know what is expected.
My OT-CE was nice within the office and very welcoming. She:	could however have been more firm in giving negative feedback did not have a lot of time to spend with us.
Support started only midway through block though tutoring was helpful	Initially did not use rubrics on reports thus comments did not align with marks. Marks for reports were late and one mark was changed at a later stage. Support started only after all reports were in thus unable to make significant changes. I feel that she did not have sufficient experience or briefing on how to supervise in order to do so effectively from the start of the practical.
OT-CEs being welcoming and easy to talk to.	Had several OT-CEs on last psych block therefore the block was disorganised and OT-CEs could not make an accurate judgement of my performance. The first OT-CE left after two weeks, the second left at the sixth week. Inconsistency influenced my learning.

Table 7.14: Negative Comments from Students on Clinical Education Blocks

Comments of Negative Nature	
Poor role-model	She was de-motivated and did not perform work adequately. Spent minimal time with patients in the community. A lot of time we learn through the example that our OT-CE sets. She did not represent the occupational therapist that I wish to become. OT-CE was not a role-model. Patients were seen only twice a week on out-reach, other than that the OT-CEs did not see patients. Majority of their day was spent socialising and relaxing
Poor quality clinical education	There was also conflict due to poor supervision. Sometimes did not agree because it was not congruent with her clinical experiences. Was more concerned about being seen as a good supervisor to the university than accommodating changes in requirements from previous years. Lots of difficulties were encountered due to different theory from different universities. She was trying to further her own learning. Terminology different (2x). Biggest problem was agreeing with the requirements and format specific to Wits eg. Method used to prioritise aims, write outcomes and select outcomes.
Clinical education process	She did not know much about the work expected (2x) and therefore could not facilitate learning. She would agree to come when asked (to observe sessions) but never did. She always did with other OTSs. At the end of the block no additional feedback given aside from the ABC form. Issues from after mid –case were brought up in the end of block evaluation and this was not done on time. Feedback given was minimal and very late.(3x) Did not receive feedback from OT-CE once the whole block besides the ABC form which was too late to adapt to. She only observed my final case with my university supervisor She did not provide any learning/observation opportunities. Problems with the expected written workload were not resolved- too overwhelming No adequate help was given to direct my learning. I don't feel I learnt much. The feedback given at the end of the block was more negative than positive. She did not mark my psych report. I felt like I was not good enough after the prac. In my final case no rubric was used. At the end of the block she raised issues with us with regards extra requirements and the ABC form. However it was very late and thus we had no opportunity to correct the situation. OT-CE somewhat accommodating but feedback was inconsistent, only on reports and some treatment sessions and not in the middle of block. Evaluations of sessions were done verbally in front of patients which was unprofessional and unethical. She only gave feedback when I went to her several times asking for feedback. Did not use the PBL approach and limited feedback on treatments we also had to innate our own opportunities to go into the community and see people in the community.

Time	My supervisor was very absent and seldom facilitated my learning OT-CE was not present the first week therefore she was not prepared and the following weeks were rushed She was barely around no time was made for feedback in spite of our efforts to make appointments. The supervisor was not always there Poor time management. He had lots of responsibilities so our time was limited. But because we were mostly in the neuro gym and she worked in hands I didn't see her often and when I went to her for feedback it was always very brief. and did not touch base from week to week.
OT-CE-OTS relationship	Could not form a relationship with her as she always made me feel scared to ask a question. Communication was poor between myself and my OT-CE which caused problems throughout the block. She discussed me with other OTSs. important that OT-CEs speak to OTSs if they are concerned about things and not mark them down at the end where there is something that could be solved. The OT-CE just marked us down and did not communicate. Miscommunication about dates

7.1.4.7 **Discussion that informed cycle 4**

Demographics of the sample

The twenty two OT-CEs that participated in the pilot study typically fitted the profile of occupational therapists that are responsible for the clinical education of final year Wits OTSs. Most were young, between 20 and 29 years of age, female, most had completed their undergraduate course at Wits and had limited postgraduate experience. All of them worked in positions in the Public Health Sector delivering occupational therapy services across the main fields of practice.

All participants rated themselves as inexperienced OT-CEs although they had difference levels of clinical experience varying from less than six months to over two years. However, most had had limited experience of being an OT-CE, although one had been responsible for ten students she still rated herself as inexperienced.

This cohort of participants rated themselves as having less knowledge and skill related to clinical education than the sample that participated in the skill-set study described in Chapter 6 and the frequency percentages were lower for all knowledge and skill variables in the pre-training evaluation, although overall the difference was not significant. Perhaps the fact that these participants had volunteered to participate in the pilot study indicates that they did not feel confident or adequately prepared for this role

and therefore rated their perceived knowledge and skill of clinical education as mostly inadequate. However, CEUs were also given to participants so that may also have been a motivator.

The OT-CE training programme

The pilot study was undertaken in two different training sessions which were held within three weeks of one another. The venue for the training was different, with the first being held in the Wits OTD facilities and the other at the Wits Learning Centre at Chris Hani Baragwanath Academic Hospital. This was done purely for logistical reasons to reduce travelling and costs for the participants. The programme for both training sessions was essentially the same, although the time allocation of some sessions was adjusted by the researcher and research assistant based on their experience with the first group. The practical activities in some sessions were also adapted to the participants' field of practice so that the practical sessions related directly to the clinical education of OTSs in their work place.

The significant difference between the OT-CEs' before and after the training ratings on all the knowledge and skill variables was a cautiously pleasing result, with the extent of the improvement possibly exaggerated. The training course although focussed on what was perceived to be the clinical education gap mainly reinforced knowledge and limited practical skills within clinical education, so the extent of the improvement evident in the score was surprising. Most professional learning requires some practice and reflection to ensure competence. The positive comments by many of the participants suggested that the training was appropriate, helpful and meaningful. These two findings suggested that at the end of the training participants felt better equipped to deal with the clinical education OTSs than before the training from both a knowledge and skill perspective. Similar findings have been found in other health worker studies with participants' ratings of their perceived knowledge, skill and attitudes very high following training [405]. One of the limitations of this study is that there was no follow-up evaluation of the participants' knowledge, skill and attitude to clinical education in the subsequent period following the training, to examine whether the improvement had been sustained and integrated into practice or whether improved knowledge and skill was simply a subjective, temporary response. Follow-up was not done for two reasons. The first was logistical and related to the need to complete the data collection process which had already been extended

beyond the expected time. The second was based on the study by Christie et.al. who reported only a marginal change in the knowledge, skill and attitude scores following training at a third and later time period measurement where participants reported being slightly less positive about the skill and confidence than just following the training [405]. The assumption being that a big change would not be expected from the post training data.

A study by Hancox, Lynch, Happell and Biondo. who evaluated a similar programme for nurses found that participants acknowledged that the greatest gains after the training had been in a change of attitude and confidence [406]. In this study the participants who came for the training all demonstrated positive attitudes to clinical education and reported an improvement in confidence to contribute to clinical education of OTSs.

This study relied on the participants being able to truthfully and accurately assess their knowledge, skill and attitude towards clinical education of OTSs. There has been relatively little research on perceived and actual knowledge and skill. However, research by Gordon identified low validity of self-assessed knowledge and skill and that there is a generalised overconfidence in such assessments [407]. Research by Radecki and Jaccard also reported a low correlation between perceived and actual knowledge, with the only factor influencing this being personal relevance of the information [408]. Research by Dunning, Heath and Suls reported that self-evaluation of knowledge and skill is intrinsically difficult and that there are many factors that prevent one from accurate self-impressions. This was probably not considered sufficiently when planning this research. Evaluation of knowledge and skill by others is usually more accurate [409]. The participants' pre-training skills were of less concern as the scores on the surface appeared consistent with expectation and experience from the prior study. However, the post-training score appeared unusually high especially the skills score, considering that there was some practical training but limited skill training and the focus was on knowledge. This result may be explained by the work of Dunning et. al. who reinforced that intense and short term training produces 'quick-learning' and high performance in the short term, but that the knowledge and skill dissipate swiftly and are easily forgotten. Retaining and transferring knowledge and skill requires a different kind of approach where the learning is distributed over time, with feedback and practice opportunities [409]. This may have some implication for the way in which future courses are presented.

Consideration is also needed on the comments related to the educational contents that were presented. The comment about the inclusion of Bloom's taxonomy was unexpected as Bloom's Taxonomy had been incorporated in the theoretical information to explain how students learn and the different levels of learning. In future more emphasis will be placed on the name.

Researcher and research assistant concurred that some additional practical activity that help participants deal with students with difficult behaviour needed to be included, but that it should not relate to at-risk or failing students, as all participants rated their knowledge of these two variables as excellent. This result was a surprise because failing and at-risk students are generally difficult to deal with. Even very experienced OT-CEs, find identifying the best way to assist is complex as learning difficulties are often compounded by personal and contextual problems which also need attention.

There was varied opinion on the information included about PBL. Some participants felt there was a bit too much information on PBL and another participant felt there could have been more as she was not Wits trained. Discussion between the researcher and research assistant concluded that more practical work could be included relating to how to use it in practice as student participants in the focus groups reported that the PBL process was not being used to facilitate learning in clinical contexts. Thus, rather than talk about what it is, demonstrate how it can be used in practice to guide a student's learning, especially when there is a gap in the student's knowledge. Most of the participants were Wits trained and had experience of using the PBL process in the classroom. A study by Scaffa and Wooster suggests that this classroom experience enables OTSs to use the PBL process to inform therapy, but learning to use PBL as an educational strategy requires an OT-CE to have knowledge of the pedagogy that underpins PBL to use it successfully as a teaching strategy [77]. Sadlo believes that OT-CEs should use PBL in the clinical context to facilitate OTS learning, as OT-CEs find it difficult to explain the knowledge they use in clinical practice because the knowledge is tacit. Sadlo advocates that the PBL process, without any adaptation, may be a very useful and time efficient tool to help students to embed their classroom theoretical learning in the context of real-life practise, and PBL can easily accommodate OTSs' differing learning styles [410].

Participants felt that OT-CE training did not include enough information on students' different learning styles. This critique is well founded as international studies of occupational therapy clinical education have determined that one of the characteristics of excellent OT-CEs is their being able to recognise the learning style of the OTS and to provide learning opportunities and feedback in a manner which best suits the individual student [215, 217, 229]. The work by Wolfsfeld and Haj-Yahia suggests that this may be more difficult in clinical settings than is generally believed [128]. The skill variable 'Assessing and accommodating to student's learning styles' also had the lowest rating post training. While OT-CEs may recognise different learning styles from their undergraduate knowledge, literature suggests that supervisors have difficulty in adjusting to or changing their learning style to match that of the students[128] . Thus this is an aspect that could do with more attention.

More discussion about the models of clinical education was also suggested to support the text that had been included in the resource pack. South African OT-CEs prefer the responsibility of a single OTS and tend to use the no-model model or apprenticeship model of clinical education. Like many countries in the occupational therapy world, South Africa has an increasing number of OTSs and a limited number of clinical practice sites that are willing and able to accommodate OTSs. It is therefore important that we collectively start to examine alternative models of OT-CE so that we can make the best use of the available resources without limiting the quality of an OTS's clinical exposure and experience. Thus this topic would also need more time and attention [10, 164, 411].

While 'Role-modelling', 'Professional behaviours and skills' and 'Developing and maintaining clinical education relationship' were variables that all participants rated in their post training as excellent, these remain a considerable problem based on the students' comments. Therefore the information on these aspects will remain unchanged.

Students' comments on their clinical education

At the time of the data collection the 41 final year OTSs who participated in the study had collectively completed 123 blocks of clinical education. Of these, 30 OTS experiences had been with OT-CEs who had been trained, while the majority had received their clinical education from OT-CEs (n=93) who had not been trained.

The result was disappointing. There was no statistically significant difference between these two groups except for three variables where the untrained group of OT-CEs had a higher mean score: 'Understood the Wits course' and 'Was clear about what you had been taught in the classroom' (P=0.002); 'Agreed with what you had been taught in the classroom' (p=0.035); and 'Orientated you to the department/ working context' (p=0.04). The most likely reason for this finding was that the more experienced OT-CEs were in the untrained group and probably Wits trained, so these three variables were routine for them.

In addition, the 3 point rating scale (yes, sometimes and no) was not sensitive and therefore not able to determine small differences if they existed. Due to the fact that this sample was not normally distributed the quintile ranges were used and therefore it was not easy to determine how many yes, no and sometimes answers were given in each group. Also the continuity of clinical education blocks in specific sites was not continuous due the clinical education programme (especially the short clinical education blocks such as the four week urban block) and it is possible that without any reinforcement the information that had been learnt was already dissipating. This result also perhaps supports the findings by Dunning et al. who described short and intensive training programmes as being 'quick-learning' and where the learning if not practised dissipates quickly and easily.

A serious constraint in this aspect of Study 8 was that the comments from the OTSs could only be collected after their block marks were finalised and they could be assured that whatever comment they made could not influence their marks. Collecting this data immediately after each block would have been ideal. The fact that OTSs had relied on memory and the fact that they had gained experience over the five months they had been completing clinical blocks may well have influenced the nature of their responses to the fairly detailed information requested about the clinical education they received in each block.

The comments by the students at the end of their evaluation form support the finding of the focus group that there are clearly 'pockets of excellence' in clinical education on the Wits teaching platform as well as 'challenges to the quality' of clinical education. Of the nineteen positive comments only one was about an OT-CE who had been trained and it

was outstanding: '*The best clinical education that I have received within my 4 years of studying occupational therapy'.* Perhaps a positive comment like this makes a project of this magnitude seem worthwhile because there is one inexperienced OT-CE who will make a difference.

There were many more negative comments than positive ones which suggest that more needs to be done in terms of an OT-CE training programme. While consistent with the findings of the focus groups, the inclusion of six comments relating to OT-CEs who had been trained was disappointing. These comments also reflected those reported in the focus groups described in Chapter 4, as well as those reported in the Chapter 2 that initiated this research. These findings therefore also provide the empirical evidence that these problems do exist in reality and are not just hearsay. Although the context is different the comments are consist with those already reported.

Poor role-models and unprofessional and unethical behaviour: 'OT-CE was de-motivated and did not perform work adequately and spent minimal time with the patients; OT-CE did not see patients, the majority of time was spent socialising and relaxing; Giving feedback in front of the patient which was unprofessional and unethical; She was barely around/was very absent, discussed me with other OTSs; she was not a role-model.

Reluctant OT-CEs: not up to date, used different terminology and theory because of training, wanted to be seen as being a good OT-CE by the university tutor rather than provide feedback and assistance.

Knowledge and skill of teaching: Did not know much about the work expected, lack of understanding and agreement with the requirements; not abreast of changes in requirements, was trying to extend her own knowledge, did not use PBL approach, limited feedback, limited help, did not direct learning, more negative than positive feedback and as a result did not feel good enough at the end of the block, did not mark a report, reluctance in giving feedback even when asked, only feedback was the ABC form nothing more, did not provide any learning/observation opportunities; limited and inconsistent feedback, did not use rubrics.

OT-CE relationship: OT-CE did not communicate concerns, could not form a relationship as she always made me feel scared to ask a question, communication was poor between myself and OT-CE throughout the block that caused problems, miscommunication, conflict due to poor clinical education, at the end of the block OT-CE raised issues regarding extra requirements and it was too late to attend to and correct them.

Time: He had poor time management and therefore time was limited, no time was made for feedback, too busy with other responsibilities, worked in another treatment area and was therefore not physically present for observation and feedback, feedback was late and often no time for feedback.

While many of these negative comments are concerning from an educational perspective and are a challenge to the quality of clinical education on our teaching platform, they are even more concerning from a professional perspective. The Wits OTD can offer training and support to OT-CE to overcome the clinical educator knowledge and skill gap but they are less able to influence the unprofessional behaviour that seems to be relatively common practice. Reporting this to the HPCSA or provincial authorities, based on past experience, has not proved effective and risks damaging the precarious relationships which the OTD has nurtured to provide essential clinical training opportunities for our students.

Thus the null-hypothesis set at the beginning of Cycle 3 that:
Active participation in and completion of the inexperienced OT-CE training programme would not influence:

- the participants' perception of their knowledge, skills and values related to clinical education as identified on the OT-CE skill-set: was rejected,
- the students' perception of the clinical education post training: was accepted.

7.1.5 **Cycle 4: Way Forward**

The purpose of this final cycle was to decide on the way forward i.e. how to tackle the clinical education challenges that have been confirmed with empirical evidence throughout this research and which continue to plague clinical education on the Wits clinical teaching platform. While this final cycle does not include any further research,

the purpose is to propose a realistic, practical and resource efficient way forward and which will require a future research endeavour.

In examining the challenges they can be categorised as:

Professional: In this regard poor role modelling, unprofessional behaviour, reluctance and time limitations are probably what the Wits OTD can influence least. These require strong professional leadership within the different work sectors and professional structures. While the Wits OTD may support any attempts to deal with these issues, such support cannot be detrimental to the valuable and collaborative relationships which have been developed with these sites over the years or jeopardise clinical education for our growing body of students.

Educational: Here many of the problems remain educational in nature: the OT-CE relationship; knowledge and skill related to clinical education; managing time; and improving role-modelling. These are all aspects that can be addressed by the Wits OTD through a clinical education training programme.

Throughout the many aspects of this research project the desire and need for an OT-CE training programme has been a continuous theme from all stakeholders and research participants viz. clinical occupational therapists, OT-CEs, Wits academic staff, the broader national community of academics and finally, students who are the recipients of this essential type of education.
The various stages of the research have identified both the strengths and the weaknesses of clinical education on our teaching platform. The problems facing clinical educators are clear and well defined.

While the OT-CE skill-set is a work in progress and not a product, it formed the basis for establishing the clinical education knowledge and skill gap between experienced and inexperienced OT-CEs. The research suggests that inexperienced OT-CEs gain clinical education knowledge and skill with experience, however the nature of this experience and the time needed to gain this experience are unclear. Since many of the OT-CEs are young, and the nature of the occupational therapy workforce is quite transitory, there is ongoing

pressure to keep training OT-CEs so as to accommodate the increasing student numbers. There is thus acknowledgement that OT-CE training will be a concern for the Wits OTD for the foreseeable future until there is a stable group of trained OT-CEs. This has been included in the departmental strategic planning as a means to achieve excellence.

The pilot study training was enthusiastically received by the participants, and the significant difference between the pre- and post-training scores demonstrates perceptions that the training was valuable. However the pilot study that included 30 trained OT-CEs versus 93 untrained OT-CEs failed to demonstrate a statistical difference between the two groups based on the OTSs' ratings.

Considering and analysing the reasons for this, it was acknowledged that one of the shortcomings of the pilot study was the failure to measure the ongoing effects of the training and examine how the clinical education knowledge and skill were being used by the OT-CEs in the clinical context. The lack of ongoing support and input may have resulted in the clinical education knowledge and skill dissipating between the training and the measuring of the students' feedback. Evidence against the success of the training programme was also evident in the OTSs' comments of their clinical education. Only one OTS commented positively about clinical education by a trained OT-CE, six commented negatively and two submitted mixed comments. However the process of gaining this feedback was not flawless. A substantial problem was that OTSs commented retrospectively on three groups of OT-CEs (inexperienced who were trained, inexperienced who were not trained, as well as experienced OT-CEs. Thus OTSs had to rely on their memory over time and answer quite detailed information about the nature of clinical education received. In addition the 93 untrained OT-CEs were not identified as inexperienced and inexperienced which may also have contributed to this result.

With hindsight the following is recommended as a way forward:

This second pilot study has been designed as set out in Table 7.15. This would measure progress over time relative to both inexperienced OT-CEs who were untrained. The use of theoretical and practical reinforces before and during

clinical blocks would aim to ensure that training information was used and could not dissipate as easily.

Table 7.15: Proposed Format for Second Pilot Study

Study Group	**Control Group 1**	**Control Group 2**
Purposively selected group of inexperienced OT-CEs trained using the current programme with the minor adjustments proposed at the time of the January meeting.	Experienced OT-CEs untrained	Inexperienced OT-CEs untrained
Block 1 with mid-block practical reinforcement.	Block 1	Block 1
Student evaluation of clinical education in that clinical block		
On-line reinforcement in between blocks		
Block 2 with mid-block practical reinforcement.	Block 2	Block 2
Student evaluation of clinical education in that clinical block		
On-line reinforcement in between blocks		
Block 3 with mid-block practical reinforcement.	Block 3	Block 3
Student evaluation of clinical education in that clinical block		

In the longer term all new academic staff, all Wits employed clinical tutors and all new OT-CEs should attend a training programme, and compulsory attendance should be promoted through MOU/MOAs or service level agreements. There should be regular educational input at the clinicians meetings with practical activities to facilitate learning and discussion about clinical education.

A programme for the experienced OT-CEs should be developed to address their knowledge skill gap as identified in Chapter Six.

The formation of special interest OT-CEs group may be a valuable vehicle to continue the interest in and development of clinical education on the teaching platform.

CHAPTER EIGHT

8. MAIN FINDINGS AND RECOMMENDATIONS

8.1 MAIN FINDINGS

As described in Chapter 2, this research arose from the need and obligation of the academic OTD to manage the quality of the clinical education for the OTSs on the Wits teaching platform. This essential and compulsory clinical experience contributes to the achievement of clinical competencies that are described in exit level outcomes, as well as laying the foundation for future professional practice and life-long professional learning.

While the academic department has no jurisdiction over service delivery in its clinical training sites it does have a responsibility to understand the context, concerns and needs of both the OT-CEs and OTSs in terms of the achievement of quality of clinical education as well as the achievement of required clinical competencies. In addition, the academic department needs to partner with occupational therapy service providers to align professional education to the local and national service delivery needs and ensure that OTSs have the required knowledge, skill and attitude for entry level practise on graduation. This partnership needs also to consider the professional developments globally that impact on professional and educational practice, and current professional developments based on evidence and best practice so we remain professionally competitive locally and in the international arena.

Prior to this research initiative there were perceptions of clinical education excellence but also many concerns about poor clinical education that compromised OTSs' clinical learning. These concerns were based on hearsay and inconsistent student performance, as well as OT-CEs' and university educators' or tutors' reports. There was a tension around exactly what clinical education entailed, the theory OTSs were taught in the classroom, what OTSs should be learning in the clinical context, how the classroom learning should be transitioned into the clinical context, and whose responsibility it was to teach and evaluate them, as well as how OT-CEs are rewarded/compensated for taking on this responsibility.

The research has highlighted that professional education is profoundly complex in its conceptualisation and its appropriate delivery for local practise in a changing socio-political health and education system. Clinical education is but one of many facets of professional education that require effective leadership and collaborative efforts of all role-players to provide meaningful educational opportunities in order to develop the future occupational therapy workforce within the current legislative framework prescribed by the HPCSA.

This research focused on clinical education as a narrow component of the broader scope of professional occupational therapy education. One of the limitations of such a research project is that clinical education does not happen in isolation and is affected by the broader educational and service delivery issues that confront the profession, both positive and negative. So it is probable that there are factors influencing clinical education that have not been sufficiently considered in trying to focus this research.

The unique contribution of this research is the providing of empirical evidence that there are pockets of excellence in clinical education on the Wits clinical training platform and that OT-CEs play an important role in effective clinical learning, professional development of OTSs and professional identity which prepares them for future practice. But there are also people and practises that challenge the quality of clinical education. This theme is consistent throughout the research and has been forthcoming from three different and unrelated cohorts of students over a five year period, as well as from clinicians and academic staff. It is also evident that this is not a problem unique to the Wits teaching platform, it is also experienced by the other seven universities and, on the basis of the international literature, is also a global occupational therapy problem. This research has also highlighted that while there is a perception that the problem exists, the extent and nature of the problem is not evident until considerable time and effort is spent in 'unpacking' the problem as well as in exploring the factors contributing to this.

The first research question to be addressed was to determine:
What are the factors that impact on quality clinical education of OTSs on the Wits teaching platform?

This research offered comprehensive and unique insights into the factors that are impacting clinical education on our clinical teaching platform. These can be summarised as: professional, contextual, personal and educational factors. All factors are important but the one that was the focus of this research was the last one. However each of these factors has elements which positively advance clinical education or negatively influence quality.

Professional factors include: the practice of the profession in keeping with developing professional paradigm shifts, current research and best evidence which emphasises the occupational nature of the profession [7, 15, 18]. While this is recognised as the unique contribution of occupational therapy, the work that is done in most fields of practice and in service delivery sites seems not to be occupation-based but is rather focused on the clients' medical symptoms. Thus what OT-CEs say about their practice and what they do is somewhat different, which is confusing from an OTS perspective. This confusion impacts on professional identity as well as how the profession is viewed and valued by clients and other health professionals. Clinical occupational therapists without postgraduate education seem mainly to practise as they were taught in undergraduate courses. Continuing professional development legislated by the HPCSA seems not to help clinical occupational therapists keep up-to-date, and there is a reliance on clinical education of students to expose them to new developments, without this necessarily influencing practice, especially in traditional fields of practice.

Contextual factors include the numerous environmental factors that influence clinical education. These include the socio-political and institutional policies and regulations in the broader sense which impact on attitudes to clinical education of future professionals. They also impact on resource allocation (staff availability/transport/accommodation/ material) clinical staff and OTSs have available for occupation-based practice and other resources for optimal client care. These aspects are embodied in the University-Provincial MOUs around student clinical education, which are either often obsolete or in place but not in practise, or just newly signed and not yet practised. Contextual factors also include the national/provincial occupational therapy job descriptions and also involve departmental leadership attitudes to clinical education, advocacy and support OT-CEs for in this role within the local occupational therapy structures. This should also include the partnership with the university, input into the design and content of the

curriculum as well as the communication with university staff who contribute to the clinical education at that site.

Personal factors include the individual's educational and clinical experience, personal work ethic; desire and interest. These all contribute to training of the future generations of occupational therapists. They also include a set of personal qualities/attributes that foster a sound OT-CE-OTS relationship, communication, in-action reading of OTSs needs, being fair, open consistent and honest in evaluations, and being able to manage time so that the demands of both service delivery and student education are met without undue stress.

Educational factors: International literature advocates that OT-CEs need some fundamental knowledge and skill of education in order to successfully manage the quality clinical education. This is currently not the case for South African OT-CEs who tend to base their clinical education management and style of clinical education on: role-modelling of the OT-CEs they had as OTSs; some principles of adult learning and supervision principles which they learn in relation to mid-level workers (OTTs and volunteers); peer- teaching, supervision and evaluation as students in the undergraduate courses; some exposure to more experienced OT-CEs and advice and assistance from line managers; and some procedural information from the Wits OTD presented during the clinicians' meetings (if they attend).

These factors collectively influence:

- The desire to take on the OT-CE role in spite of acknowledging its professional value,
- How the profession is practised (role-modelling), the resources for that practice and the way the profession is viewed by others,
- Time available for clinical education and current clinical education practises including OT-CE-OTS relationships, clinical education processes and opportunities for clinical, learning,
- How students learn in the clinical context and cope with these new demands,

- The clinical curriculum, what it means and what students are expected to learn, and the clinical competencies they are expected to achieve.

Participants in all components of the fixed sequential mixed methods study described in Chapters 4 and 5 identified the need for OT-CEs to be knowledgeable and skilled in the clinical educational processes and to have fundamental understanding of educational principles that support clinical education. Since this was the case the research progressed to examine the second research question detailed below.

The second research question was:

Would clinical occupational therapists responsible for the clinical education of OTSs in a variety of clinical education sites on the Wits teaching platform benefit if they were specifically trained as OT-CEs?

In order to answer this question a unique OT-CE skill-set was developed from an extensive integrative literature review. The OT-CE skill-set was developed using work-focussed units of competence which described the generic knowledge, skills and attitudes needed to carry out the significant roles and functions of an OT-CE on the Wits clinical teaching platform using a framework adapted from that used by Jones, Verhees and Paulsen [309]. The OT-CE skill set described as foundational the personal attributes and characteristics needed to be an OT-CE, the process of learning the roles and functions of an OT-CE, and the acquired knowledge to a competent OT-CE. The skill–set has allowed role players to acknowledge and have a new perspective on the complexity of the clinical education role which clinical occupational therapists to take on as well as the need for additional education and support needed to assist them. This OT-CE skill-set was used to develop a questionnaire that was administered to a sample of experienced and inexperienced OT-CEs in a qualitative study. This study determined there was a statistically significant educational gap between experienced and inexperienced OT-CEs on most knowledge and skill variables. There was less difference between the two groups on the attitude variables but there was a concerning number of OT-CEs who did not wish to take on this role in spite of them believing that this was their professional responsibility. Based on the clinical education gap that had been identified, four cycles of action research were used to develop a macro-curriculum,

a micro-curriculum, educational contents and delivery of a unique OT-CE training programme for inexperienced OT-CEs.

In a pilot study 22 inexperienced OT-CEs actively participated in and completed the OT-CE training programme, and reported that the training programme was valuable, meaningful and relevant. The pre and post test results noted a significant improvement in the individuals' rating of their knowledge and skill in clinical education. Thus this aspect of the null-hypothesis was rejected.

The final year occupational therapy students completed a detailed evaluation form on all there clinical blocks over a six month period. Thirty students received clinical education from OT-CEs who had been trained and 93 from those who had no training. There were no significant differences between these two groups so the null-hypothesis was accepted that the training did not affect the students' perception of their clinical education. However, there were many methodological issues that almost certainly affected the results.

While this was a disappointing result it never the less highlighted that an educational programme alone is not sufficient to ensure quality clinical education and that continuous input in needed. This input needs to be planned and strategic.

8.2 RECOMMENDATIONS

The findings of this study reinforce the notion that clinical education is extremely complex and multi-facetted. Furthermore the findings suggest that clinical education of students is a topic that needs ongoing attention. To ensure excellence in teaching and learning of all clinical education processes must be carefully evaluated.

The recommendations pertaining to the OT-CE training programme are recorded in Cycle 4 of Study 7.

However, there are other areas of concern that this research has covered that need further investigation:

A high number of clinical staff in the research sample cohort in this study have expressed their reluctance to become involved in the clinical education of OTSs in spite of acknowledging that it is their ethical responsibility to do so. Exploring the source of this reluctance and putting in measures to reduce this will be important if quality clinical education is to be ensured. This research has shown that reluctance impacts on the quality of clinical education.

The low involvement of occupational therapy managers as reported in this study is another area for exploration. The literature reports that active involvement in the clinical education programme is a key for success. The reason why occupational therapy managers have such a low level of involvement is worthy of study as it influences the support, leadership and importance given to clinical education within their sites.

8.3 LIMITATIONS TO THE STUDY

The greatest limitation to this study is that clinical education is extremely complex and multi-faceted. It takes place in multiple and varied contexts and is undertaken by people who collectively and individually have confounding factors that make an in-depth exploration and comprehensive solutions difficult. While common problems and themes have emerged, there are others that are quite context, and person-specific. There seem to be no quick fix solutions for the problems that have been uncovered.

This research has concentrated on clinical education of occupational therapy students on the Wits clinical teaching platform in the context of a specific and unique clinical curriculum, therefore the findings may not be generalisable to other training platforms or the clinical training of other health profession students.

While all samples have been carefully selected to ensure representivity, the samples have in each study been small either because of the research design or because the population has been quite restricted. A limited return rate in Study 6 by the university employed staff was low and although a wave analysis showed that there was no non-return bias was evident, the low return may have influenced the results. The low return rate of comments on the micro-curriculum for the training programme in Study 7 may have influenced content and organisation of the training programme.

As mentioned previously, the lack of follow up and additional input to the participants following the training programme undoubtedly influenced the clinical education following training. In addition the fact that student feedback could only be accessed once the mid-year clinical block marks were finalised may well have influenced their rating of their clinical education as they had to rely on memory for many of the ratings and the assessment of the non-trained group did not separate the experienced and inexperienced OT-CEs. This may have influenced the accuracy of the results.

REFERENCES

1. Costa D. *Clinical Supervision in Occupational Therapy: A Guide for Fieldwork and Practice*. 1 ed. Bethesda: American Occupational Therapy, Inc., 2007b, p.277.
2. South African Government. Higher Education Laws Amendment Act. In: Education DoN, (ed.). Pretoria: South African Government Printer, 2010.
3. South African Government. Health Professions Act 56 of 1974. In: Healtth DoN, (ed.). Pretoria: Government Printer, 1974.
4. Council for Higher Education. The Higher Education Qualifications Sub-Framework. In: Higher Education and Training, (ed.). Pretoria: Government Gazette, 2013.
5. Wrightson P and Cross V. Integrating Research into the Culture of Allied Health Professions: The Background and a Review of Issues in the United Kingdom. *Journal of Allied Health*. 2004; 33: 132-8.
6. Cooke M, Irby DM, Sullivan W and Ludmerer KM. American medical education 100 years after the Flexner report. *New England Journal of Medicine*. 2006; 355: 1339-44.
7. Hocking C and Ness N. *Revised Minimum Standards for the Education of Occupational Therapists*. World Federation of Occupational Therapists., 2002.
8. Sweeney G, Webley P and Treacher A. Supervision in Occupational Therapy, Part 3: Accommodating the Supervisor and Supervisee. *British Journal of Occupational Therapy*. 2001c; 64: 426-31.
9. Casares G, Bradley K, Jaffe K and Lee G. Impact of the Changing Health Care Environment on Fieldwork Education. *Journal of Allied Health*. 2003; 32: 246-51.
10. Fisher A and Savin-Baden M. Modernising Fieldwork, Part 2: Realising the New Agenda. *British Journal of Occupational Therapy*. 2002; 65: 275-82.
11. Reilly M. Occupational Therapy can be one of the Greatest Ideas of 20th Century Medicine. *American Journal of Occupational Therapy*. 1962; 16: 300-8.
12. Miralles P and Valaverde M. Occupational Therapy: A Historical Perspective 90 years after its establishment. *Occupational Therapy of Galicia*. 2007; Monographic 1: 1-323.
13. Fisher A. Uniting Practice and Theory in an Occupational Therapy Framework. *American Journal of Occupational Therapy*. 1998; 52: 509-21.
14. Hocking C. Implementing Occupation-based Assessment. *American Journal of Occupational Therapy*. 2001; 55: 463-9.
15. Yerxa EJ. Occupational Science: A New Source of Power for Participants in Occupational Therapy. *Occupational Science: Australia*. 1993; 1: 3-9.

16. Kielhofner G, Tham K, Baz T and Hutson J. Performance Capacity in the Lived Body. In: Kielhofner G, (ed.). *Model of Human Occupation*. Third ed. Baltimore: Lippincott Williams and Wilkins, 2002, p. 81-98.
17. Clark F, Parham D, Carlson M, et al. Occupational Science: Academic Innovation in the Service of Occupational Therapy's Future. *American Journal of Occupational Therapy*. 1991; 45: 300-10.
18. Watson R and Fourie M. Occupation and Occupation Therapy. In: Watson R and Swartz L, (eds.). *Transformation through Occupation*. First ed. London: Whurr Publishers, 2004, p. 19-32.
19. Nelson D. Occupation: Forms and Performance. *American Journal of Occupational Therapy*. 1988; 42: 633-41.
20. Molke D, Laliberte-Rudman D and Polatajko H. The Promise of Occupational Science: a developmental assessment of an emerging academic discipline. *Canadian Journal of Occupational Therapy*. 2004; 71: 269-81.
21. Watson R. New Horizons in Occupational Therapy. In: Watson R and Swartz L, (eds.). *Transformation through Occupation*. First ed. London: Whurr Publishers, 2004, p. 3-18.
22. World Health Organisation. Definition of Health. *Know WHO*. 2010.
23. African National Congress. *A National Health Plan for South Africa*. Johannesburg: African National Congress, 1994.
24. World Health Organisation The Ottawa Charter for Health Promotion. Genewa: WHO, 1986.
25. Bruce J, Klopper H and Mellish J. *Teaching and Learning the Practice of Nursing*. Fifth ed. Cape Town: Heinemann, 2011, p.410.
26. Austen P. The Environment as it affects Faculty Today. *Occupational Therapy Education: Target 2000*. Colorado: American Occupational Therapy Association, 1986, p. 52-6.
27. Wilcock A. Reflections on Doing, Being and Becoming. *Australian Occupational Therapy Journal*. 1999; 46: 1-11.
28. Wilcock A. *An Occupational Perspective of Health*. 3rd ed. New Jersey: Slack Incorporated, 2015, p.512.
29. Health Professions Council of South Africa Professional Board for Occupational Therapy Medical Orthotists and Prosthotists and Art Therapy. Minimum Standards of Training for Occupational Therapists. Pretoria: HPCSA., 2010, p. 1-22.

30. Health Profesions Council of South Africa Professional Board for Occupational Therapy Medical Orthotists and Prosthotists and Art Therapy. Draft Scope of Profession: Occupational Therapy. In: Van Niekerk L and van Niekerk M, (eds.). Pretoria2012, p. 1-5.
31. Hocking C and Whiteford G. Introduction to Critical Perspectives in Occupational Science: Society, Inclusion and Participation. Oxford: Wiley Blackwell, 2012.
32. Galvin D, Wilding C and Whiteford G. Utopian Visions/Dystopian Realities: Exploring Practice and Taking Action to Enable Human Rights and Occupational Justice in a Hospital Context. *Australian Occupational Therapy Journal*. 2011; 58: 378-85.
33. Dickie V, Cutchin M and Humphry R. Occupation as Transactional Experience. A Critique of Individualism in Occupational Science *Journal of Occupational Science*. 2006; 13: 83-93.
34. Aldrich R. From complexity theory to transactionalism: Moving Occupational Science forward in Theorizing the complexities of behavior. *Journal of Occupational Science*. 2011; 15: 147-56.
35. Kuhn T. *The Structure of Scientific Revolutions*. 3rd ed. Chicago: The University of Chicago Press, 1996.
36. Rowles G. Beyond Performance: Being in Place as a Component of Occupational Therapy. *American Journal of Occupational Therapy*. 1991; 45: 265-71.
37. Smith E and Mackenzie L. How Occupational therapists are perceived in in-patient Mental Healthcare Settings: The perceptions of Seven Australian Nurses. *Australian Occupational Therapy Journal*. 2011; 58: 251-60.
38. Quiroga V. *Occupational Therapy: The first 30 years: 1900-1930*. Bethesda: American Association of Occupational Therapy,, 1995, p.1-260.
39. Kearney P. The Influence of Competing Paradigms on Occupational Therapy Education: a Brief History. 2004.
40. Rodger S, Webb G, Devitt L, Gilbert J, Wrightson P and McMeeken J. Clinical Education and Practice Placements in the Allied Health Professions: An International Perspective. *Journal of Allied Health*. 2008; Spring 37.
41. Crowe MJ and Mackenzie L. The influence of fieldwork on the preferred future practice areas of final year occupational therapy students. *Australian Occupational Therapy Journal*. 2002; 49: 25-36.

42. Allison H and Turpin M. Development of a Student Placement Evaluation Form: A tool for Assessing Student Fieldwork Performance. *Australian Occupational Therapy Journal*. 2004; 51: 125-32.
43. Bonello M. Fieldwork within the context of Higher Education: a Literature review. *British Journal of Occupational Therapy*. 2001; 64: 93-9.
44. Missiuna C, Polatajko H and Ernest-Conibear M. Skill Acquisition during Fieldwork Placements in Occupational Therapy. *Canadian Journal of Occupational Therapy*. 1992; 59: 28-39.
45. Walters B. Radical Action for Radical Plans. *British Journal of Occupational therapy*. 2001; 64: 559-63.
46. Holmes J, Bossers A, Polatajko H, et al. 1000 Fieldwork Hours: Analysis of Multi-site Evidence. *Canadian Journal of Occupational Therapy*. 2010; 77: 135-43.
47. City University London. What are the Roles and Responsibilities of a Clinical Supervisor?2010: (2010, accessed 28.07.2010).
48. The Chartered Society of Physiotherapy. A Guide to Implementing Clinical Supervision CPD37: (2005, accessed 27.7.2011).
49. Lenon J and Kennedy A. Clinical supervision policy for nurses, midwives and allied health professionals,. In: Trust WPHC, (ed.). Wiltshire 2008.
50. Malik Y. Clinical Supervision (Reflective Practice Policy). In: Trust HPC, (ed.). 2007.
51. Ronis V and Hubbert V. Clinical Supervision Framework. Lincolnshire Community Health Services, 2008, p. 15.
52. Queensland Occupational Therapy Fieldwork Collaborative. The Clinical Educator's Resource Kit. 2007a.
53. Queensland Occupational Therapy Fieldwork Collaborative. Benefits of OT Supervision. 2007b.
54. Lorenzo T, Duncan M, Buchanan H and Alsop A. *Practice and Service Learning in Occupational Therapy: Enhancing Potential in Context*. 1st ed. Chichester: John Wiley & Son,Ltd, 2006, p.278.
55. Higher Education Quality Committee. *Service-learning in the Curriculum: A Resource for Higher Education Institutions*. Pretoria: Council for Higher Education, 2006, p.223.
56. Duncan M and Alsop A. Practice and Service Learning in Context. In: Lorenzo T, Duncan M, Buchanan H and Alsop A, (eds.). *Practice and Service Learning in Occupational Therapy: Enhancing Potential in Context*. first ed. Chichester: John Wiley and Sons, Ltd, 2006, p. 7-19.

57. Aiken F, Menaker L and Barsky L. Fieldwork Education: The Future of Occupational Therapy Depends on it. *Occupational Therapy International*. 2001; 8: 86-95.
58. Steele-Smith S and Armstrong M. "I would take more students": Student Supervision strategies. *British Journal of Occupational Therapy*. 2001; 64: 549-51.
59. Department of Health. A National Human Resource Plan for Health. In: Department of Health: An Accessible CaHQHS, (ed.). Pretoria: Government Printer, 2006, p. 1-105.
60. Costa D. Fieldwork Issues: Fieldwork Educator Readiness. Bethesda: American Occupational Therapy Association, 2007a, p. 1-3.
61. Stahl C. Therapeutic Use of Self. *ADVANCE for Occupational therapy practitioners* 2012: (1998, accessed 13.03. 2012).
62. Haertl K. The Roots of Psychosocial Practice- Therapeutic Use of Self in the Classroom: Practical Applications for Occupational Therapy Faculty. *Occupational Therapy in Mental Health*. 2008; 24: 121-34.
63. Wilcock A. Development of a Personal, Professional and Educational Occupational Philosophy: An Australian Perspective. *Occupational Therapy International*. 2000; 7: 79-86.
64. American Occupational Therapy Association Comission on Education. Philosophy of Occupational Therapy Education. *American Journal of Occupational Therapy*. 2007; 61: 678.
65. South African Qualifications Authority. National Qualification Framework: Level Descriptors. In: Department of National Education, (ed.). Pretoria2007, p. 1-45.
66. Wood W. Weaving the Warp and Weft of Occupational Therapy: An Art and Science for All Times. *American Journal of Occupational Therapy*. 1995; 49: 44-52.
67. Bachelorsofscience.org. Bachelor of Science versus Bachelor of Arts: What's the difference?2015: (2015, accessed 6.04.2015).
68. Norman G and Schmidt H. The Psychological Basis of Problem Based Learning: A Review of the Evidence. *Academic Medicine*. 1992; 67: 557-65.
69. Bender C, Daniels P, Lazarus J and Sattar K. Formulating Learning Outcomes for Service-Learning: Critical Cross Field Outcomes and Specific Outcomes. Pretoria: Council on Higher Education and JET/CHESP, 2006, p. 40-6.
70. Olivier B. Why OBE has not worked in South Africa. *Mail & Guardian*. Johannesburg 2009.
71. Schmidt H. Foundations of Problem-based Learning: Some explanatory notes. *Medical Education*. 1993; 27: 422-32.

72. Frost M. An Analysis of the Scope and Value of Problem-based Learning in the Education of Health Care Professionals *Journal of Advanced Nursing*. 1996; 24: 1047-56.
73. Kantrowitz M, Kaufman A, Mennin S, Fulop T and Guilbert J. Innovative Tracks at Established Institutions for Education of Health Personnel: an Experimental approach to change relvant to health needs. Geneva: WHO., 1987, p. 1-68.
74. Savin-Baden M and Howell Major C. *Foundations of Problem-based Learning*. New York: Society for Research into Higher Education and Open University Press, 2004, p.192.
75. Maudsley G. Do We All Mean the Same Thing by " Problem Based Learning"? A Review of the Concepts and a Formulation of the Ground Rules. *Academic Medicine*. 1999; 74: 178-84.
76. Hmelo-Silver C. Problem-Based Learning: What and How Do Students Learn? *Educational Psychology Review*. 2004; 16: 235-66.
77. Scaffa M and Wooster D. Effects of Problem-Based Learning on Clinical Reasoning in Occupational Therapy. *American Journal of Occupational Therapy*. 2004; 58: 333-6.
78. Beers G. The Effects of Teaching Method on Objective Test Scores: Problem- Based Learning Versus Lecture. *Journal of Nursing Education*. 2005; 44: 305-9.
79. Parland M, Noble L and Livingston G. The Effectiveness of Problem-based Learning compared to Traditional Teaching in Undergraduate Psychiatry. *Medical Education*. 2004; 38: 859-67.
80. Albanese M. Problem-Based Learning: Why curricula are likely to show little effect on knowledge and clinical skills. *Medical Education*. 2000; 34: 729-38.
81. Clark C. Problem-Based Learning: How do the outcomes compare with traditional teaching? *The British Journal of General Practice*. 2006; 56: 722-3.
82. Kentli FD. Comparison of Hidden Curriculum Theories. *European Journal of Educational Studies*. 2009; 1: 83-8.
83. Higgs J. Foreword. In: Rose M and Best D, (eds.). *Transforming Practice through Clinical Education, Professional Supervision and Mentoring*. 1st ed. Edinburgh: Elsevier Churchill Livingstone, 2005, p. ix-x.
84. Shardlow S and Doel M. Health and Social Care: a Complex Context for Professional Education. In: Doel M and Shardlow S, (eds.). *Educating Professionals: Practice Learning in Health and Social Care*. 1 ed. Farnham: Ashgate Publishing Ltd, 2009, p. 3-14.

85. Palsek P and Greenhalgh T. The Challenge of Complexity in Health Care. *British Medical Journal*. 2001; 15: 625-8.
86. Walker S and Grosjean G. Desired Skills and Attributes for Dietician Preceptors. *Canadian Journal of Dietetic Practice and Research*. 2010; 71: 134-8.
87. Best D. Exploring the Role of the Clinical Educator. In: Rose M and Best D, (eds.). *Transforming Practice through Clinical Education, Professional Supervision and Mentoring*. 1st ed. Edinburgh: Elsvier Churchill Livingstone, 2005a, p. 45-8.
88. Shulman LS. Theory, Practice and the Education of Professionals. *The Elementary School Journal*. 1998; 98: 511-26.
89. Laurent T and Weidner T. Clinical Instructors' and Student Athletic Trainers' Perceptions of Helpful Clinical Instructor Characteristics. *Journal of Athletic Training*. 2001; 36: 56-61.
90. Bain L. Preceptorship: Review of the Literature. *Journal of Advanced Nursing*. 1996; 24: 3.
91. Myrick, F. Preceptorship and Critical Thinking in Nursing Education. *Journal of Nursing Education*. 2002; 41: 10.
92. Kilminster S and Jolly B. Effective Supervision in Clinical Placement Settings. *Medical Education*. 2000; 34: 827-40.
93. Pentland W. Conversations for Enablement: Using Coaching Skills in Occupational Therapy. *Occupational Therapy Now*. 2014; 14: 2.
94. Lawrie C and Polglase T. What is practice education? In: Polglase T and Treseder R, (eds.). *The Occupational Therapy Handbook: Practice Education*. Cumbria: M&K Publishing, 2014, p. 1-170.
95. World Federation of Occupational Therapists. Occupational Therapy Human Resource Project. 2012.
96. Mbambo N. Predictors of Success for Black Physiotherapy Students in South Africa. *Department of Physiotherapy*. Johannesburg: University of the Witwatersrand, 2008.
97. Cottrell S, Gill A, Saizow R, Nelson E and Shumway J. A Teaching Oath: A Commitment to Medical Students' Learning and Development. *Teaching and Learning in Medicine*. 2012; 24: 165-9.
98. Health Profesions Council of South Africa Professional Board for Occupational Therapy Medical Orthotists and Prosthotists and Art Therapy. Submission of Occupational Therapy Qualification for Registration with SAQA. HPCSA, 2006, p. 1-23.
99. Higgs J and McAllister L. Educating Clinical Educators: Using a Model of the Experience of Being a Clinical Educator. *Medical Teacher*. 2007; 29: 51-7.

100. Brown L and Kennedy-Jones M. Part 2 The Manager Role. In: Rose M and Best D, (eds.). *Transforming Practice Through Clinical Education, Professional Supervision and Mentoring*. Edinburg: Churchill Livingstone Elsvier, 2005, p. 49-57.
101. Clark M and Treseder R. Preparation of Students for Placement. In: Polglese T and Treseder R, (eds.). *The Occupational Therapy Handbook: Practice Education*. 2nd ed. Cumbria: M&K Publishing, 2014, p. 29-36.
102. Ferguson K. Professional supervision. In: Rose M and Best D, (eds.). *Transforming Practice through Clinical Education,Professional Supervision and Mentoring*. Edinburg: Churchill Livingstone Elsvier, 2005, p. 293-308.
103. College of Occupational Therapists. To be or not to be? Factors influencing Career Choice of Occupational Therapy Students. London: College of Occupational Therapy, 2002.
104. Burges A, Goulston K and Oates K. Role Modelling of Clinical tutors: a Focus Group Study among Medical Students. *BMC Medical education*. 2015; 15: 1-9.
105. Reilly B. Inconvenient Truths about Effective Clinical Teaching. *The Lancet*. 2007; 370: 6.
106. Mc Allister L. An Adult Learning Framework for Clinical Education. In: Mc Allister L, Lincoln M, Mc Leod S and Maloney D, (eds.). *Facilitating Learning in Clinical Settings*. Cheltenham: Stanley Thornes, 1997, p. 1-26.
107. Mc Allister L. The experience of being a clinical educator. *Speech and Hearing Pathology*. Sydney: University of Sydney, 2003.
108. Jensen G, Gwyer J, Shepard K and Hack L. Expert Practice in Physical Therapy. *Physical Therapy*. 2000; 80: 28-43.
109. Turney C, Cairns L, Eltis K, Hatton N, Thew D and Wright r. *Supervisor development programmes: Role handbook*. Sydney: Sydney University Press, 1982.
110. Cheetham G and Chivers G. Part 1: How professionals learn: the theory. *Journal of Industrial Training*. 2001; 25: 250-69.
111. Sweeney G, Webley P and Treacher A. Supervision in Occupational Therapy, Part 1: The supervisors anxieties. *British Journal of Occupational Therapy*. 2001a; 64: 337-45.
112. Kelly R. How to give Feedback: The Simple 3 Step Sandwich Method 2010.
113. Buccieri K, Pivko S and Olzenak D. How does a Physical Therapist Acquire the Skills of an Expert Clinical Instructor? *Journal of Physical Therapy Education*. 2011; 25: 17-25.

114. Hirneth M and Mackenzie L. The Practice Education of Occupational Therapy Students with Disabilities: Practice Educators' Perspectives. *British Journal of Occupational Therapy*. 2004; 67: 396-403.
115. Farmer S and Farmer J. *Supervision in Communication Disorders*. Ohio: Merrill Publishing, 1989.
116. McLeod S, Romanini J and Cohn E. Models and Roles in Clinical Education. In: Mc Allister L, Lincoln M, McLeod S and Maloney D, (eds.). *Facilitating Learning in Clinical Settings*. Cheltenham Stanley Thornes, 1997, p. 53-61.
117. Buchanan H, van Niekerk L and Moore R. Assessing Fieldwork Journals: Developmental Portfolios. *British Journal of Occupational Therapy*. 2001; 64: 398-402.
118. Kirke P, Layton N and Sim J. Informing Fieldwork Design: Key elements to quality in fieldwork education for undergraduate occupational therapy students. *Australian Journal of Occupational Therapy*. 2007; 54: S13-S22.
119. Bleakley A and Bligh J. Student learning from patients': Lets get real in medical education. *Advances Health Science Education: Theory and Practice*. 2008; 13: 89-107.
120. Henriksen A and Ringsted C. Learning from Patients: Students' Perceptions of Patient-instructors. *Medical Education*. 2011; 45: 913-9.
121. Chan D. Associations between Student Learning Outcomes from their Clinical Placement and their Perceptions of the Social Climate of the Clinical Learning Environment. *International Journal of Nursing Studies*. 2002; 39: 517-24.
122. Pellegrino E. The Internal Morality of Clinical Medicine: A Paradigm for the Ethics of the Helping and Healing Professions. *Journal of Medicine and Philosophy*. 2001; 26: 559-79.
123. Seeleman C, Selleger V, Essink Bot M-L and Bonke B. Teaching Communication with Ethnic Minority Patients: Ten Recommendations. *Medical Teacher*. 2011; 33: 814-9.
124. Hanson D, Johnson C and Strutz-Tanenbaum P. The Fieldwork Educator. *OT Practice*. AOTA, 2010.
125. Pereira R. Learning and Being a First-time Student Supervisor: Challenges and Triumphs. *Australian Journal of Rural Health*. 2008; 16: 247-8.
126. Ryan S. The Challenging Learning Situation. In: Rose M and Best D, (eds.). *Transforming Practice through: Clinical Education,Professional Supervision and Mentoring*. Edinburg: Elsevier, 2005, p. 369.
127. Joffee B. Models of Clinical Education. In: Rose M and Best D, (eds.). *Transforming Practice through Clinical Education, Professional Supervision and Mentoring*. Edinburgh: Elsevier Churchill Livingstone, 2005, p. 29-36.

128. Wolfsfeld L and Haj-Yahia M. Learning and Supervisory Styles in the Training of Social Workers. *The Clinical Supervisor*. 2010; 29: 68-94.
129. Campbell J. Becoming an Effective Supervisor: A workbook for Counselors and Psychotherapists. Philadelphia: Taylor and Francis, 2000, p.300.
130. Campbell J. *Essentials of Clinical supervision*. Hoboken: Wiley, 2006.
131. Vygotsky L. *Mind in Society*. Cambridge: Harvard University Press, 1978, p.1-159.
132. Cohn ES, Dooley N and Simmons L. Collaborative Learning Applied to Fieldwork Education. Hathworth 2001.
133. de Clute J and Ladyshewsky R. Enhancing Clinical Competence using a Collaborative Clinical Education Model. *Physical Therapy*. 1995; 73: 683-9.
134. Johnson D and Johnson R. Learning Together and Alone: Cooperative, Competetive and Individualistic Learning. Boston: Allyn and Bacon, 1991.
135. Cara E. Fieldwork Supervision in Mental Health Settings. In: Cara E and Mac Rae A, (eds.). *Psychosocial Occupational Therapy: A Clinical Practice*. New York.: Thomson Delmar Learning, 2005, p. 654-86.
136. Bongo M and Mc Knight K. Clinical Supervision in Social Work: A review of the Research Literature. *The Clinical Supervisor*. 2008; 24: 46-67.
137. Kaduskin A and Harkness D. Educational Supervision: Definition, Differentiation, Content and Process. In: Kaduskin A and Harkness D, (eds.). *Supervision in Social Work*. 5th ed. New York: University Press, 2002, p. 55-90.
138. Stoltenberg C. Approaching Supervision from a Developmental Perspective: The Counselor Complexity Model. *Journal of Counseling Psychology*. 1981; 28: 6.
139. Ronnestad M and Skovholt T. Supervision of Beginnings and Advanced Graduate Students of Counseling and Psychotherapy. *Journal of Counseling and Development*. 1993; 71: 396-405.
140. Bernard J and Goodyear RK. *Fundamentals of Clinical Supervision*. Boston: Allyn and Bacon, 2004.
141. Dreyfus SE and Dreyfus HL. A Five-Stage Model of Mental Activities Involved in Directed Skill Acquisition. California: University of Berkeley Operations Research Unit, 1980, p. 22.
142. Benner P. From Novice to Expert. 1982; American Journal of Nursing: 402-7.
143. Loganbill C, Hardy E and Delworth U. Supervision:A Conceptual Model. *The Counseling Psychologist*. 1982; 10: 3.

144. Cara E and Mac Rae A. *Psychosocial Occupational Therapy: A Clinical Practice*. 2nd ed. New York: Thomson Delmar Learning, 2005.
145. Loevinger J. The Meaning and Measurement of Ego Development. *American Psychologist*. 1966; 21: 195-206.
146. Privott C. The Fieldwork Anthology: A Classic Research and Practice Collection. Bethesda: American Association of Occupational Therapy., 1998.
147. Schwartz KB. An Approach to Supervision of Students on Fieldwork. *American Journal of Occupational Therapy*. 1984; 38: 393-7.
148. du Toit V. *Patient Volition and Action in Occupational Therapy*. 2nd revised ed. Pretoria: Marie and Vona du Toit Foundation, 1991.
149. Bernard J and Goodyear R. *Fundamentals of Clinical Supervision*. 5th ed. Los Angeles: Pearson, 2014, p.448.
150. Hawkins P and Schohet R. *Supervision in the Helping Professions*. 4th ed. Philadelphia: Open University Press, 2012, p.276.
151. Hersey P, Blanchard K and Johnson D. *Management of Organizational Behaviour: Utilizing Human Resources*. 8th ed. Upper Saddle River: Prentice Hall, 1996.
152. Christie A. A Meaningful Occupation:The Just Right Challenge. *Australian Occupational Therapy Journal*. 1999; 46: 52-68.
153. Nye C. Using Developmental Processes in Supervision: a Psychodynamic Approach. *The Clinical Supervisor*. 2002; 21: 39-53.
154. Goldhammer R, Anderson R and Krajewski R. *Clinical Education: Special Methods for the Clinical Education of Teachers.* New York: Holt, Rinehart and Winston., 1980.
155. Dobransky ND. Optimizing Learning through Teacher-Student Relationships: a Test of Causal Process Student Understanding Model. *College of Communication and Information Studies*. Lexington: University of Kentucky, 2008, p. 133.
156. Cox K. Planning Bedside Teaching: Debriefing after Clinical Interaction. *Medical Journal of Australia*. 1993; 158: 571-2.
157. Huddleston R. Clinical Placements for the Professions Allied to Medicine, Part 1: A Summary. *British Journal of Occupational Therapy*. 1999; 62 213-9.
158. Sweeney G, Webley P and Treacher A. Supervision in Occupational Therapy, Part 2: The Supervisee's Dilemma. *British Journal of Occupational Therapy*. 2001b; 64: 380-431.
159. Ladyshewsky R. Enhancing Service Productivity in Acute Care In-patient Settings using a Collaborative Clinical Education Model. *Physical Therapy*. 1995; 75: 503-10.

160. Jung B, Sainsbury S, Grium R, Wilkins S and Tryssenaar J. Collaborative Fieldwork Education with Student Occupational Therapists and Occupational Therapist Assistants. *Canadian Journal Of Occupational Therapy*. 2002; 69: 95-103.
161. Hallin K, Kiessling A, Waldner A and Hendriksson P. Active Interprofessional Education in a Patient based setting increases perceived Collaboration and Interprofessional Competence. *Medical Teacher*. 2009; 31: 151-7.
162. Ponzer S, Hylin U, Kusoffsky A, et al. Interprofessional Training in the Context of Clinical Practice: Goals and Students' Perceptions on Clinical Education Wards. *Medical Education*. 2004; 38: 727-36.
163. van Niekerk L, Duncan M and Prakke K. The Student as Supervisor. In: Lorenzo T, Duncan M, Buchanan H and Alsop A, (eds.). *Practice and Service Learning in Occupational Therapy: Enhancing Potential in Context*. Chichester: John Wiley and Sons Ltd, 2006, p. 234-46.
164. Lekkas P, Larsen T, Kumar S, et al. No Model of Clinical Education for Physiotherapy Students is Superior to Another: A Systematic Review. *Australian Journal of Physiotherapy*. 2007; 53: 19-28.
165. Cronin-Davis J and Long C. Tracking Developments in Mental Health Practice. In: Long C and Cronin-Davis J, (eds.). *Occupational Therapy Evidence in Practice for Mental Health*. Blackwell, 2006, p. 1-208.
166. Daffue Y. Occupational Therapy Statistics. In: Witt PAd, (ed.). Pretoria: Health Profesions Council of South Africa Professional Board for Occupational Therapy Medical Orthotists and Prosthotists and Art Therapy,, 2011, p. 1-2.
167. Health Systems Trust. Number of Occupational Therapists Registered with HPCSA. *Health Indicators*. 2014.
168. Committe University Heads. University Report to the National Occupational Therapy Forum. Johannesburg2011, p. 8.
169. Mohamed S. Community Service for Health Professionals to Improve Services [online]2015: (2006, accessed 6.04.2015).
170. Franzsen D. Wits Occupational Therapy Department : The First 50 years. Johannesburg: University of Witwatersrand, 1993, p. 58.
171. Department of Justice. The Constitution of the Republic of South Africa. Pretoria: Government Gazette, 1996.
172. Cynkin S and Robinson A. Occupational Therapy and Activities Health: Towards Health through Activities. Boston: Little Brown, 1990, p.1-304.

173. Galvaan R. Role-emerging Settings, Service Learning and Social Change. In: Lorenzo T, Duncan M, Buchanan H and Alsop A, (eds.). *Practice and Service Learning in Occupational Therapy*. Chichester: John Wiley and Sons, Ltd, 2006, p. 1-288.
174. South African Society of Physiotherapy. Occupation Specific Dispensation. In: Fourie M, (ed.). 2009.
175. Maxwell JA. Causal Explanation, Qualitative Research and Scientific Inquiry in Education. *Educational Researcher* 2004; 33: 3-11.
176. Creswell J. Research Design: Quantitative, Qualitative and Mixed Methods Approaches. 3rd ed. Los Angeles: Sage, 2009a.
177. Corcoran M. Using Mixed Methods Designs to Study Therapy and its Outcomes. In: Kielhofner G, (ed.). *Research in Occupational Therapy: Methods of Inquiry for enhancing Practice*. Philadelphia: F.A Davis Company, 2006, p. 411-9.
178. Creswell J. Quantitative Methods. *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. Third ed. Los Angeles: Sage, 2009b, p. 145-71.
179. Creswell J. Action Research Designs. In: John Creswell, (ed.). *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research*. 4th ed. Boston: Pearson, 2012b, p. 576-601.
180. Abrams L. Action Research. In: Mc Millan J and Schumacher S, (eds.). *Research in Education Evidence Based Inquiry*. 7th ed. Essex: Pearson, 2014, p. 477-88.
181. Luborsky M and Lysack C. Overview of Qualitative Research. In: Kielhofner G, (ed.). *Research in Occupational Therapy: Methods of Inquiry for Enhancing Practice*. First ed. Philadelphia: FA Davis Company, 2006, p. 326-40.
182. Web C and Kevern J. Focus Groups as a Research Method: a Critique of some aspects of their use in Nursing Research. *Advanced Nursing*. 2001; 33: 798-805.
183. Bradbury-Jones C, Sambrook S and Irvine F. The Phenomenological Focus Group: an Oxymoron? *Journal of Advanced Nursing*. 2009; 65: 663-71.
184. Forsyth K and Kviz F. Survey Research Design. In: Kielhofner G, (ed.). *Research in Occupational Therapy: Methods of Inquiry for Enhancing Practice*. First ed. Philadelphia: F.A. Davis Company, 2006, p. 91-109.
185. Creswell J and Plano Clark V. Choosing a Mixed Methods Design. In: Creswell J, (ed.). *Designing and Conducting Mixed Methods Research*. 2nd ed. 2011, p. 53-106.
186. Laverty S. Hermeneutic Phenomenology and Phenomenology: A comparison of historical methodological considerations. *International Journal of Qualitative Methods*. 2003; 2: 1-10.

187. Evans MJ and Hallett C. Living with Dying: a Hermeneutic Phenomenological Study of the work of Hospice Nurses. *Journal of Clinical Nursing*. 2007; 16: 742-51.
188. van Manen M. Researching Lived Experience: Human science for an action sensitive Pedagogy. Ontario: Althouse Press, 1990, p.196.
189. van Manen M. Phenomenology of Practice. *Phenomenology and Practice* 2007; 1: 11-30.
190. Gill P, Stewart K, Treasure E and Chadwick B. Methods of Data Collection in Qualitative Research: Interviews and Focus Groups. *British Dental Journal*. 2008; 204: 291-5.
191. Richie J. Application of Qualitative Methods to Social Research. In: Richie J and Lewis J, (eds.). *Qualitative Research Practice: Guide for Social Science Students*. London: Sage Publications Ltd, 2003, p. 24-46.
192. Bender D and Ewbank D. The Focus Group as a Tool for Health Research: Issues in Design and Analysis. *Health Transition Review*. 1994; 4: 63-79.
193. Onwuegbuzie A, Dickinson W, Leech N and Zoran A. A Qualitative Framework for Collecting and Analyzing Data in Focus Group Research. *International Journal of Qualitative Methods*. 2009; 8: 1-20.
194. Lysack C, Luborsky M and Dillaway H. Gathering Qualitative Data. In: Kielhofner G, (ed.). *Research in Occupational Therapy: Metods of Inquiry for Enhancing Practice*. First ed. Philadelphia: F A Davis Company, 2006, p. 341-57.
195. van Manen M. *Researching Lived Experience: Science for Action Sensitive Pedagogy*. New York: State University New York Press, 2015, p.202.
196. Shenton A. Strategies for Ensuring Trustworthiness in Qualitative Research Projects. *Education for Information*. 2004; 22: 63-75.
197. Hennink M, Hutter I and Bailey A. *Qualitative Research Methods*. 1st ed. Los Angeles: Sage, 2011, p.308.
198. Gibbs A. Focus groups. *Social Research Update*. 1997; 19: 1-7.
199. Parker-Muti B. Conducting a Focus Group. *The Qualitative Report*. Florida: Nova South Eastern University, 2010, p. 1023-6.
200. Graneheim B and Lundman B. Qualitative Content Analysis in Nursing Research: Concepts, Procedures and Measures to achieve Trustworthiness. *Nursing Education Today*. 2004; 24: 105-12.
201. Siegle D. Trustworthiness: (2011, accessed 3.09.2012).
202. Groenewald T. A Phenomenological Research Design Illustrated. *International Journal of Qualitative Methods*. 2004; 3: 1-26.

203. Creswell J. Analyzing and Interpreting Qualitative Data. In: John C, (ed.). *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research*. Fourth ed. Boston: Pearson, 2012e, p. 236-64.
204. Kielhofner G. *Model of Human Occupation: Theory and Application*. 4th ed.: Lippincott Williams & Wilkins, 2008, p.565.
205. Jarvis P. Learning and Action. In: Jarvis P, (ed.). *Towards a Comprehensive Theory of Human Learning*. London: Routledge, 2006, p. 1-218.
206. Higgs J and Mc Allister L. The Lived Experiences of Clinical Educators with Implications for their Preparation, Support and Professional Development. *Learning in Health and Social Care*. 2005; 4: 156-71.
207. Creswell J. Collecting Qualitative Data. In: John W Creswell, (ed.). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. Fourth ed. Boston: Pearson, 2012d, p. 204-35.
208. Njelesani J. Articulating an Occupational Perspective. *Journal of Occupational Science*. 2014; 21: 226-35.
209. Turpin M, Rodger S and Hall A. Occupational Therapy Student's Perception of Occupational Therapy. *Australian Occupational Therapy Journal*. 2012; 59: 367-74.
210. Rogers S. Occupation-Based Intervention in Medical Settings. *OT practice* 2007; 12: 10-6.
211. Nastaasi J. Fieldwork. *Work*. 2013; 44: 245.
212. Health Professions Council of South Africa. Standards of Practice for Occupational Therapists Pretoria2006
213. Tryssenaar J. The Lived Experience of Becoming an Occupational Therapist. *British Journal of Occupational Therapy*. 1999; 62: 107-12.
214. Holland K, Middleton L and Uys L. Professional Confidence: Conceptions held by Novice Occupational Therapists in South Africa. *Occupational Therapy International*. 2013; 20: 105-13.
215. Grenier M. Facilitators and Barriers to Learning in Occupational Therapy Fieldwork Education: Students Perspectives. *American Journal of Occupational Therapy*. 2015; 69 (upplement 2): p1-p9.
216. Mac Kenzie L. Briefing and Debriefing of Student Fieldwork Experiences:Exploring Concerns and Reflecting on Practice. *Australian Occupational Therapy Journal* 2002; 48: 82-92.

217. Rodger S, Thomas Y, Greber C, et al. Attributes of Excellence in Practice Educators: The Perspectives of Australian Occupational Therapy Students. *Australian Occupational Therapy Journal*. 2014; 61: 156-67.
218. Emslie B. Occupational Therapists' Experience of their Role as Clinical Educators during the Fieldwork Experience of Occupational Therapy Students. *Occupational Therapy*. Cape Town: University of Stellenbosch, 2012.
219. Holland K, Middleton L and Uys L. The Sources of Professional Confidence in Occupational Therapy Students. *South African Journal of Occupational therapy*. 2012; 42: 19-25.
220. Hattingh R. Description of Occupational Therapy Fieldwork Supervision, at the University of the Free State. *Occupational Therapy*. Bloemfontein: University of the Free State, 2014.
221. Syed Z. Professional Identity of Third Year Occupational Therapy Students during their First Acute Psychiatric Fieldwork Placement: A Phenomenological Perspective. *Occupational Therapy*. Cape Town: University of Stellenbosch, 2016.
222. Grysgus I and Prusik K. Moulding of Professional and Personal Features of a Character of Future Specialists on Health. *Global Journal of Advanced Research*. 2015; 2: 41-3.
223. Breslin E, Sebstian J, Trautman D and Rosseter R. Sustaining Excellence and Relevance in Ph.D. Nursing Education. *Nursing Outlook*. 2015; 63: 428-31.
224. Zastavker Y, Goodman J and Christetianson R. Defining Moments: The Link between the Definition of Teaching and the Desire to Teach. *Frontiers in Education*. El Paso: IEEE, 2015.
225. Thomas Y, Dickson D, Broadbridge J, Hopper L, Hawkins R and Mc Bryde K. Benefits and Challenges of Supervising Occupational Therapy Fieldwork Students: Supervisors' Perspective. *Australian Occupational Therapy Journal* 2007; 54: S2-S12.
226. Rodger S, Thomas Y, Dickson D, et al. Putting Students to Work: Valuing Fieldwork Placements as a Mechanism for Recruitment and Shaping the Future Occupational Therapy Workforce. *Australian Occupational Therapy Journal*. 2007; 54: S94-S7.
227. Mc Carthy B. Preceptors' Experiences of Clinically Educating and Assessing Undergraduate Nursing Students: an Irish Context. *Journal of Nursing Management*. 2010; 18: 234-44.
228. Scheerer C. Perception of Effective Professional Behavior Feedback: Occupational Therapy Student Voices. *American Journal of Occupational Therapy*. 2003; 57: 205-14.

229. Campbell M and Corpus K. Fieldwork Educators' Perspectives: Professional Behavior Attributes of Level ll Fieldwork Students. *The Open Journal of Occupational Therapy*. 2015; 3: 1-7.
230. Hummell J. Effective Fieldwork Supervision: Occupational Therapy Student Perspectives. *Australian Occupational Therapy Journal*. 1997; 44: 147-57.
231. Severinsson E and Sand A. Evaluation of the Clinical Supervision and Professional Development of Student Nurses. *Journal of Nursing Management*. 2010; 18: 669-77.
232. Hodgetts S, Hollis V, Triska O, Dennis S, Madhill H and Taylor E. Occupational Therapy Students' and Graduates' Satisfaction with Professional Education and Preparedness for Practice. *Canadian Journal of Occupational Therapy*. 2007; 74: 148-60.
233. Brown T, Williams B and Lynch M. Relationship between Clinical Fieldwork Educator Performance and Health Professional Students' Perceptions of their Practice Education Learning Environments. *Nursing and Health Sciences*. 2013; 15: 510-7.
234. McAuliffe T and Barnett F. Factors influencing Occupational Therapy Students' Perceptions of Rural and Remote Practice. *International Electronic Journal of Rural and Remote Health, Education, Practice and Policy*. 2009; 9: 1-12.
235. Chiang H, Pang C, Li W, Shih Y and Su C. An Investigation of the Satisfaction and Perception of Fieldwork Experiences among Occupational Therapy Students. *Hong Kong Journal of Occupational Therapy*. 2012; 22: 9-16.
236. Hills C, Ryan S, Smith DR and Warren-Forward H. The impact of 'Generation Y' occupational therapy students on practice education. *Australian Occupational Therapy Journal*. 2012; 59: 156-63.
237. Hoppes S and Hellman C. Understanding Occupational Therapy Students' Attitudes, Intentions and Behaviours regarding Community service. *American Journal of Occupational Therapy*. 2007; 61: 527-34.
238. Irby D. Clinical Teaching and the Clinical Teacher. *Medical Education*. 1995; 61: 35-45.
239. Mackey H. Living Tensions Reconstructing Notions of Professionalism in Occupational Therapy. *Australian Occupational Therapy Journal*. 2014; 61: 168-76.
240. Aguilar A, Stupans I, Scutter S and King S. Exploring Professionalism: The Professional Values of Australian Occupational Therapists. *Australian Occupational Therapy Journal*. 2012; 59: 209-17.
241. Driscoll J. Practising Clinical Supervision: A Reflective Approach for Healthcare Professionals. 2nd ed. Edinburgh: Elsvier, 2007.

242. Health Professions Council of South Africa. Continued Professional Development: Guidelines for Health Professionals. Pretoria2009.
243. Mc Kenna K, Scholtes A-A, Fleming J and Gilbert J. The Journey through an Undergraduate Occupational Therapy Course: Does it change students' attitudes, perceptions and career plans? *Australian Occupational Therapy Journal*. 2001; 48: 157-69.
244. Rogers S. Occupation-Based Intervention in Medical-based settings. *OT Practice*. 2007; 12: 10-6.
245. Turner A and Knight J. A Debate on the Professional Identity of Occupational Therapists. *British Journal of Occupational Therapy*. 2015; 78: 664-73.
246. Edwards H and Dirette D. The Relationship between Professional Identity and Burnout amongst Occupational Therapists. *Occupational Therapy in Health Care*. 2010; 24: 119-29.
247. Boehm J, Tanner B, Lowrie D, et al. Exploring emerging Occupational Therapy Identity and the Development of Graduate Attributes amongst Occupational Therapy Students. *British Journal of Occupational Therapy*. 2015; 78: 499-507.
248. Mackey H. "Do not ask me to remain the same": Foucault and the Professional Identities of Occupational Therapists. *Australian Occupational Therapy Journal*. 2007; 54: 5.
249. Marray C, Turpin M, Edwards I and Jones M. A Qualitative Meta-Synthesis about the Challenges Experienced in Occupational Therapy Practice. *British Journal of Occupational Therapy*. 2015; 78: 534-46.
250. Boehme J, Cordier R, Thomas Y, Tanner B and Salata K. The First Year Experience of Occupational Therapy Students at an Australian Regional University: Promoting Student Retention and Developing a Regional and Remote Workforce. *Australian Journal of Rural Health*. 2015; Early view (online version published before inclusion in an issue).
251. Janse Van Rensburg V. Doing, Being and Becoming a First Year Occupational Therapy Student. *South African Journal of Occupational Therapy*. 2011; 41: 8-13.
252. Murray C, Turpin M, Edwards I and Jones M. A Qualitative Meta-Synthesis about the Challenges Experienced in Occupational Therapy Practice. *British Journal of Occupational Therapy*. 2015; 78: 534-46.
253. Forster K and Laurent R. How Do we make Good Doctors into Good Teachers: A Short Course to Support busy Clinicians to Improve their Teaching Skills. *Medical Teacher*. 2013; 35: 4-7.

254. Pront L, Gilham D and Schuwirth L. Competencies to Enable Learning-focussed Clinical Supervision: a Thematic Analysis of the Literature. *Medical Education*. 2016; 50: 485-95.
255. Canadian Physiotherapy Association. Clinical Education of Physiotherapy Students. 2008, p. 1-2.
256. American Speech-Language-Hearing Association. Knowledge, Skills and Training Considerations for Individuals Serving as Supervisors. In: Hale S, (ed.). American Speech-Language-Hearing Association, 2013.
257. Hall MD. To Supervise or Not To Supervise a Physiotherapy Student: A National Survey of Canadian Physical therapists. *Journal of Physical Therapy Education*. 2015; 29: 9.
258. Towns E and Ashby S. The Influence of Practice Educators on Occupational Therapy Students' Understanding of the Practical Applications of Theoretical Knowledge: A Phenomenological Study into Student Experiences of Practice Education. *Australian Occupational Therapy Journal*. 2014; 61: 344-52.
259. Fortune T, Ryan S and Adamson l. Transition to Practice in Supercomplex Environments: Are Occupational Therapy Graduates Adequately Prepared ? *Australian Occupational Therapy Journal*. 2013; 60: 217-20.
260. Makki B, Stalleh M and Harun H. The Relationship between Work Readiness Skills, Career Self-efficacy and Career Exploration among Engineering Graduates: A Proposed Framework. *Research Journal of Applied Sciences, Engineering and Technology* 2015; 10: 1007-11.
261. Kerdidjk W, Snoek J, van Hell E and Cohen-Schotanus J. The Effect of Implementing Undergraduate Competency-based Medical Education on Students Knowledge Acquisition, Clinical Performance and Perceived Preparedness for Practice: a Comparative Study. *Medical Education*. 2013; 13: 1-8.
262. Cross V. From Clinical Supervisor to Clinical Educator: Too much to ask? *Physiotherapy*. 1994; 80: 609-61.
263. Wormald B, Schoeman S, Somasubderam A and Penn M. Assessment Drives Learning: an Unavoidable Truth? *Anatomical Science Education*. 2009; 2: 199-204.
264. Delany C, Miller K, El-Ansary D, Remedios L, Hosseini A and Mc Leod S. Replacing Stressful Challenges with Positive Coping Strategies: A Resilience Program for Clinical Placement Learning. *Advances in Health Science Education* 2015; 20: 1303-24.
265. Mulholland S and Derdall M. An Early Fieldwork Experience: Student and Preceptor Perspectives. *Canadian Journal of Occupational Therapy*. 2007; 74: 161-71.

266. Ruiz-Aranda D, Extremera N and Pineda-Galan C. Emotional Intelligence, Life Satisfaction and Subjective Happiness in Female Health Professionals: the Mediating Effect of Perceived Stress. *Journal of Psychiatric and Mental Health Nursing*. 2014; 21: 106-13.
267. Janse Van Rensburg V and Kapp R. "So I have to be positive no matter how difficult it is": A Longitudinal Case Study of First Generation Occupational Therapy Students. *South African Journal of Occupational Therapy*. 2014; 44: 29-33.
268. Doble S and Santha J. Occupational Well-being: Rethinking Occupational Therapy Outcomes. *Canadian Journal of Occupational Therapy*. 2008; 75: 184-90.
269. Curwood J, Tomitsch M, Thomson K and Hendry G. Professional Learning in Higher Education: Understanding How Academics Interpret Student Feedback and Access to Resources to Improve Teaching. *Austalasian Journal of Educational Technology*. 2015; 31: 556-71.
270. Telio S, Ajjawi R and Regeher G. The "Educational Alliance" as a Framework for Reconceptualizing Feedback in Medical Education. *Academic Medicine*. 2015; 90: 609-14.
271. Ellwardt L, Labianca G and Wittek R. Who are the objects of positive and negative gossip at work? A social network perspective on workplace gossip. *Social Neworks*. 2011; 34: 193-205.
272. Dunbar R. Gossip in evolutionary perspective *Review of General Psychology* 2004; 8: 100-10.
273. de Boer B, van Hooft E and Bakker A. Self-Control at Work: Its Relationship with Contextual Performance. *Journal of Managerial Psychology*. 2015; 30: 406-21.
274. Waddington K. Behind Closed Doors: the Role of Gossip in Emotional Labour of Nursing. *International Journal of Work Organisation and Emotion*. 2005; 1: 15-29.
275. Fitzgerald R. The New Zealand Health Reforms: Dividing the Labour of Care. *Social Science and Medicine*. 2004; 58: 331-41.
276. Wittek R, van Duijn M and Snnijders T. Frame Decay, Informal Power and the Escalation of Social Control in a Management Team: a Relation Signaling Perspective. *Sociology of Organizations*. 2003; 20: 355-80.
277. de Backer C and Gurven M. Whispering Down The Lane: The Economics of Vicious Information. *Adaptive Behavior*. 2006; 14: 249-64.
278. Ilott I. The Process of Failing Occupational Therapy Students: A staff perspective. *Occupational therapy*. University of Nottingham, 1993.

279. Stefl-Mabry J, Radlick M and Doane W. Can you hear me now? Student's voices: High School and Middle School Student's Perceptions of Teachers, ICT and Learning. *International Journal of Education using Informational Technology and Communication Technology*. 2010; 6: 64-82.
280. Monaco M and Martin M. The Millennial Student: A New Generation of Learners. *Athletic Training Education Journal*. 2007; 2: 42-6.
281. Patton M. Purposeful Sampling. *Qualitative Evaluation and Research Methods*. Beverly Hills , CA: Sage, 1990, p. 169-86.
282. Dickerson A. Securing Samples for Effective Research Across Research Designs. In: Kielhofner G, (ed.). *Research in Occupational Therapy: Methods of Inquiry for Enhancing Practice*. First ed. Philadelphia: E.A.Davis Company, 2006.
283. Brod M, Tesler L and Christensen T. Qualitative Research and Content Validity. *Quality of Life Research*. 2009; 18: 1263-78.
284. Rattray J and Jones M. Essential Elements of Questionnaire Design and Development. *Journal of Clinical Nursing*. 2007; 16: 234-43.
285. Creswell J. Survey Designs. In: Creswell J, (ed.). *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research*. 4 ed. Boston: Pearson, 2012a, p. 375-421.
286. Hulkower R. The History of the Hippocratic Oath: Outdated, Inauthentic and Yet Still Relevent. *Einstein Journal of Biology and Medicine*. 2010; 25/26: 41-4.
287. Canadian Association of Occupational Therapy. Occupational Therapy-Roles and Responsibilities. Ottawa2015.
288. Finaly L. Reflecting on 'Reflective practice'. London: The Open University, 2008, p. 1-27.
289. Baird M and Winter J. Reflection, Practice and Clinical Education. In: Rose M and Best D, (eds.). *Transforming Practice through Clinical Education, Professional Supervision and Mentoring*. First ed. Edinburgh: Elsevier Churchill Livingstone, 2005, p. 1-369.
290. Goa K and Calderon A. Roles, Skills and Competencies of Middle Managers in Occupational Therapy. *The Health Care Manager*. 2007; 26: 74-83.
291. Alsop A and Ryan S. *Making the most of Fieldwork Education: A Practical Approach*. 2nd ed. London Chapman and Hall, 1999, p.243.
292. de Witt P, Rothberg A and Bruce J. Occupational Therapy Manager's Role in and Perception of Clinical Education. *South African Journal of Occupational Therapy*. 2014; 44: 9-14.

293. Bester J and Beukes S. Assuring Quality in Clinical Education. *South African Journal of Occupational Therapy*. 2011; 41: 30-4.
294. Lund Reseach Ltd. The Complete Dissertation Guide: Total Population sampling. 2012 ed.: Laerd Dissertation, 2012.
295. Bartlett JE, Kotrlik J and Higgins C. Organizational Research: Determining Appropriate Sample Size in Survey Research. *Information Technology, Learning and Performance Journal*. 2001; 19: 43-50.
296. Tomita M. Methods of Analysis: from Univariante to Multivariate Statistics. In: Kielhofner G, (ed.). *Research in Occupational Therapy: Meyhods of Inquiry for Enhancing Practice*. Philadelphia: F.A.Davis Company, 2006b, p. 243-80.
297. Secomb J. A Systematic Review of Peer Teaching and Learning in Clinical Education. *Journal of Clinical Nursing*. 2008; 17: 703-16.
298. Alsop A and Ryan S. *Making the most of Fieldwork Education : A practical approach*. 2nd ed. San Diego: Springer Science and Business media, 2013, p.1-2.
299. Higgs J and Mc Allister L. Being a Clinical Educator. *Advances in Health Science Education*. 2007; 12: 187-99.
300. Fidler G. Learning as a Growth Process: A Conceptual Framework for Professional Education. *American Journal of Occupational Therapy*. 1966; 20: 1-8.
301. Opacich K. Is an Educational Philosophy missing from the Fieldwork Solution? *American Journal of Occupational Therapy*. 1995; 49: 160-4.
302. Whittemore R and Knafl K. The Integrative Review: Updated Methodology. *Journal of Advanced Nursing*. 2005; 52: 546-53.
303. Creswell J. Analyzing and Interpreting Quantitative Data. In: Creswell J, (ed.). *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research*. 4th ed. Boston: Pearson, 2012c, p. 174-203.
304. Wright D. *The Ultimate Guide to Competency Assessment in Health Care*. Third ed. Minneapolis: Creative Health Care Management, 2005, p.208.
305. Weddel K. Competency Based Education and Content Standards. Northern Colorado Literacy Resource Centre, 2006.
306. Council of Education of Public Health. Accreditation Criteria for Schools of Public Health, Amended. NCES 202159, 2011.
307. Levy L, Sexton P, Willeford S, et al. Clinical Instructor Characteristics, Behaviors and Skills in Allied Health Care Settings: A Literature Review. *Athletic Training Education Journal*. 2009; 4: 8-13.

308. Boyt Schell B. Professional Reasoning in Practice. In: Boyt Schell B, Gillen G, Schaffa M and Cohn E, (eds.). *Willard and Spackman's Occupational Therapy*. 12th ed. Philadelphia: Wolters Kluwer Lippincott Williams and Wilkins, 2013, p. 384-94.
309. Jones E, Voorhess R and Paulson K. Defining and Assessing Learning: Exploring Competency Based Initiatives. Council of National Post Secondary Co-operative, 2002.
310. Occupational Therapy Australia. Australian Minimum Competency Standards for New Graduate Occupational Therapists (ACSOT) 2010. 2010, p.1-53.
311. World Federation of Occupational Therapists. Entry Level Competencies for Occupational Therapists 2008. Forrestfield: WFOT, 2008, p. 1-15.
312. Andersson N, Matthis J, Paredes S and Ngxoma N. Social Audit of Provincial Health Services: Building the Community Voice into Planning South Africa. *Journal of Interprofessional Care*. 2004; 18: 381-90.
313. Higashi R, Tillack A, Steinman M, Bree Johnson C and Harper M. The 'Worthy' Patient: Rethinking the 'Hidden Curriculum' in Medical Education. *Anthropology and Medicine*. 2013; 20: 13-23.
314. Jarski R, Kulig K and Olson R. Clinical Teaching in Physical Therapy: Student and Teachers Perceptions. *Physical Therapy*. 1990; 70: 173-8.
315. Currens JB and Bithell CP. Clinical Education: Listening to Different Perspectives. *Physiotherapy*. 2000; 86.
316. Schell B. Professional Reasoning in Practice. In: Schell B, Gillen G, Schaffa M and Cohn E, (eds.). *Willard and Spackman's Occupational Therapy*. 12th ed. Philadelphia: Wolters Kluwer/Lippincott Williams and Wilkens, 2014.
317. Mc Allister L. Finding Meaning and Preventing Burnout. In: Rose M and Best D, (eds.). *Transforming Practice through Clinical Education, Professional Supervision and Mentoring*. Edinburgh: Elsevier, 2005.
318. Falendar C and Shafranske E. Clinical Supervision: A Competency-based Approach. Washington, DC: American Psychological Association, 2004.
319. Korski J, Simon RL and Dooley NR. Valuable Occupational Therapy Fieldwork Educator Behaviors. *Work*. 2013; 44: 307-15.
320. Boor K, Teunissen P, Scherpber A, van der Vleuten C, van de Lande J and Scheele F. Resident's perception of the ideal clinical teacher- A qualitative study. *European Journal of Obstetrics and Gynecology and Reproductive Biology*. 2008; 140: 152-7.
321. Matthews C. Role-Modelling: How does it Influence Teaching in Family Medicine? *Medical Education*. 2000; 34: 443-8.

322. Harden R and Crosby J. AMEE Guide No 20: The Good Teacher is more than a Lecturer-The Twelve Roles of the Teacher. *Medical Teacher*. 2000; 22: 334-47.
323. Hooper B. Stories We Teach By: Intersections Amongst Faculty Biography, Student Formation and Instructional Processes. *American Journal of Occupational Therapy*. 2008; 62: 228-41.
324. Leder L, Esparza C and Peloquin S. The Conceptualization, Formative Practice, and Design of a Process for Student Development. *American Journal of Occupational Therapy*. 2005; 59: 457-66.
325. Dickerson A. Role Competencies for a Fieldwork Educator. *American Journal of Occupational Therapy*. 2006; 60: 650-1.
326. Buchel T and Edwards F. Characteristics of Effective Clinical Teachers. *Family Medicine*. 2005; 37: 30-5.
327. Dreyfus H and Dreyfus S. Mind over Machine: The Power of Human Intuition and Expertise in the Era of the Computer. New York: Free Press, 1986.
328. Nancarrow S. Dynamic Role Boundaries in Intermediate Care Services. *Journal of Interprofessional Care*. 2004; 18: 10.
329. Stutz-Tanenbaum P and Hooper B. Creating Congruence between Identities as a Fieldwork Educator and a Practitioner. *AOTA Special Interest Section Quarterly*. 2009; 19: 1-4.
330. Committee on University Fieldwork Education. Canadian Guidelines for Fieldwork Education in Occupational Therapy (CGFEOT). 3rd ed.: Association of Canadian Occupational Therapy University Programs, 2003.
331. Michels M, Evans D and Blok GA. What is a Clinical Skill? Searching for order in the chaos through a modified Delphi process *Medical Teacher*. 2012; 34: e573-e81.
332. Ruessler M and Obertacke U. Teaching in Daily Clinical Practice: How to Teach in a Clinical Setting *European Journal of Trauma and Emergency Surgery*. 2011; 39: 313-7.
333. Bennet R. Clinical Education: Perceived abilities/qualities of Clinical Educators and Team Supervision of Students. . *Physiotherapy*. 2003; 89: 432-40.
334. Lloyd C and King R. Work Related Stress and Occupational Therapy. *Occupational Therapy International*. 2001; 8: 227-43.
335. Painter J and Akroyd D. Burnout among Occupational Therapists. *Occupational Therapy in Health Care*. 2003; 17: 63-78.

336. Schaufeli W and Bakker A. Job Demands, Job Resources, and their Relationship with Burnout and Engagement: a Multi-sample. *Journal of Organisational Behaviour*. 2004; 25: 293-315.
337. Brown GT and Pranger T. Predictors of Burnout for Psychiatric Personnel. *Canadian Journal of Occupational Therapy*. 1992; 59: 258-67.
338. Panchasharam G. A Survey of Burnout of the Mental Health Occupational Therapy Staff in the Psychiatric Hospital, Bahrain. *Innovation in Psychiatry: 2nd Psychiatric Conference, Arabian Gulf Psychiatric Association*. Kingdom of Bahrain2007.
339. Barton R, Corban A, Herrli-Warner L, Mc Clain E, Riehle D and Tinner E. Role Strain in Occupational Therapy Fieldwork Educators. *Work*. 2013; 44: 317-28.
340. Brown T. Role Strain experienced by Male Occupational Therapists: A Descriptive Survey. *British Journal of Occupational Therapy*. 1998; 61: 410-7.
341. Olinsky E. Clinical Supervision in Occupational Therapy, Burnout and Related Phenomena. *5th International Technology Education and Development Conference*. Valencia Spain: INTED2011, 2011.
342. Rothman S. Burnout and Engagement : A South African Perspective. *South African Journal of Industrial Psychology*. 2003; 29: 16-25.
343. Schon D. The Reflective Practioner: How professionals think in-action. New York: Basic books, 1987.
344. Bassett H and Lloyd C. Occupational Therapy in Mental Health: Managing Stress and Burnout. *British Journal of Occupational Therapy*. 2001; 64: 406-11.
345. Artino AR, Hemmer PA and Durning SJ. Using Self-Regulated Learning Theory to Understand the Beliefs, Emotions and Behaviors of Struggling Medical Students. *Academic Medicine Supplement*. 2011; 86: S35-S8.
346. Department of Justice and Constitutional Development. Protection of Personal Information Act. Republic of South Africa: Department of Justice and Constitutional Development,, 2013, p. 148.
347. Rathbun J. Helping Medical Students develop Lifelong Strategies to Cope with Stress. *Academic Medicine Commentary*. 1995; 70: 955-6.
348. Mc Burney H. Part 5: Assessor Role. In: Rose M and Best D, (eds.). *Transforming Practice through Clinical Education, Professional Supervision and Mentoring*. First ed. Edinburgh: Elsevier Churchill Livingstone, 2005, p. 77-88.
349. Marriott J and Galbraith K. Part 3 Instructor, Observer and Provider of Feedback. In: Rose M and Best D, (eds.). *Transforming Practice through Clinical Education,*

Professional Supervision and Mentoring. Edinburg: Churchill Livingstone Elsivier, 2005, p. 58-67.

350. Spencer J. Learning and Teaching in the Clinical Environment. *British Medical Journal* 2003; 326: 591-4.
351. Docheff DM. The Feedback Sandwich. *Journal of Physical Education, Recreation and Dance*. 1990; 61: 17-8.
352. Best D. Power Issues in Clinical Education. In: Rose M and Best D, (eds.). *Transforming Practice through Clinical Education, Professional Supervision and Mentoring*. Edinburgh: Elsevier, 2005b, p. 197-206.
353. Taylor R, Lee SW, Kielhofner G and Ketkar M. Therapeutic use of Self: A Nationwide Survey of Practitioners' Attitudes and Experiences. *American Journal of Occupational Therapy*. 2009; 63: 198-207.
354. Plaut M and Baker D. Teacher-Student Relationships in Medical Education: Boundary Considerations. *Medical Teacher*. 2011; 33: 828-33.
355. Allana A, Asad N and Sherali Y. Gender in Academic Settings: Role of Teachers. *International Journal of Innovation, Management and Technology*. 2010; 1: 343-8.
356. Feist-Price S. Cross-Gender Mentoring Relationships: Critical issues. *Journal of Rehabilitation*. 1994; 60.2: 13-7.
357. Munoz J. Culturally Responsive Caring in Occupational Therapy. *Occupational Therapy International*. 2007; 14: 256-80.
358. Trentham B, Cockburn L, Cameron D and Iwama M. Diversity and Inclusion within an Occupational Therapy Curriculum. *Australian Occupational Therapy Journal*. 2007; 54: S49-S57.
359. Kolb A and Kolb D. Learning Styles and Learning Spaces: Enhancing Experiential Learning in Higher Education. *Academy of Management Learning and Education*. 2005; 4: 193-212.
360. Wolcott Doyle N and Jacobs K. Accommodating Student Learning Styles and Preferences in an on-line Occupational Therapy course. *Work*. 2013; 44: 247-53.
361. French G, Cosgriff T and Brown T. Learning Style Preferences of Australian Occupational Therapy Students. *Australian Occupational Therapy Journal*. 2007; 54: S58-S65.
362. Titiloye V and Scott A. Occupational Therapy Student Learning Styles and Application to Professional Academic Training. *Occupational Therapy in Health Care*. 2001; 15: 145-55.

363. de Witt P and Franzsen D. Evaluation of the Students Experience and their Learning Approaches in the Problem Based Learning (PBL) component of the Occupational Therapy course at the University of the Witwatersrand. *South African Journal of Occupational Therapy*. 1999; 29: 7-9.
364. Hurtubis Sahlen C and Lehmann J. Requesting Accommodations in Higher Education. *Teaching Exceptional Children*. 2006; 38: 28-34.
365. Cook A, Arora VM, Rasinski KA, Curlin FA and Yoon JD. The Prevalence of Medical Student Mistreatment and its Association with Burnout. *Academic Medicine* 2014; 89: 1-6.
366. Classen S. Study Designs for Secondary Analysis of Existing Data. In: Gary Kielhofner, (ed.). *Research in Occupational Therapy Methods of Inquiry for Enhancing Practice*. Philadelphia: FA Davis, 2006, p. 729.
367. Kielhofner G. Developing and Evaluating Quantitative Data Collection Instruments. In: Kielhofner G, (ed.). *Research in Occupational Therapy: Methods of Inquiry for Enhancing Practice*. First ed. Philadelphia: F A Davis Company, 2006, p. 155-76.
368. Tomita M. Making Meaning from Numbers: Measurements and Descriptive Statistics. In: Kielhofner G, (ed.). *Research in Occupational Therapy: Methods of Inquiry for Enhancing Practice*. Philadelphia: F.A.Davis company, 2006a, p. 213-31.
369. Creswell J. Analyzing and Interpreting Quantitive Data. In: Creswll J, (ed.). *Educational Research:Planning, Conducting and Evaluating Quantitative and Qualitative Research*. Boston: Pearson, 2012f, p. 174--203.
370. Hsieh H-F and Shannon SE. Three Approaches to Qualitative Content Analysis. *Qualitative Health Research*. 2005; 15: 1277-88.
371. Thomas DA. A General Inductive Approach for Analyzing Qualitative Evaluation Data. *American Journal of Evaluation*. 2006; 27: 237-46.
372. Public Health and Social Development. Occupational Specific Dispensation for Therapeutic, Diagnostic and Related Health Professions Bargaining Chamber Resolution of 2009. In: Health N, (ed.). Pretoria2009, p. 1-18.
373. Knight AJ. Differential Effects of Perceived and Objective Knowledge Measures on Perception of Biotechnology. *AgBioForum*. 2005; 8: 221-7.
374. Ziegler B and Montplaisir L. Student Perceived and Determined Knowledge of Biology Concepts in an Upper Level Biology Course. *Life Science Education*. 2014; 13: 322-30.

375. Chiabura D, Huang J, Hutchins H and Gardner R. Trainees' Perceived Knowledge Gain Unrelated to the Training Domain: The joint action of impression management and motives. *International Journal of Training and Development*. 2014; 18: 37-52.
376. Ferguson P. Student Perceptions of Quality Feedback in Teacher Education. *Assessment and Evaluation in Higher Education*. 2011; 36: 51-62.
377. Armstrong E and Parsa-Parsi R. How Can Physicians Learning Styles Drive Education Planning? *Academic Medicine*. 2005; 80: 680-4.
378. Hood S and Chapman E. A Tutorial Programme to Enhance Psychiatry Learning Processes within a PBL -Based Course. *Education Research and Perspectives*. 2011; 38: 69-86.
379. NHS Education for Scotland. Clinical Skills Passport for Relief and Temporary Staff In Neonatal Units. 2009, p. 1-32.
380. Eraut M, Alderton J, Cole G and Senker P. Development of Knowledge and Skill at Work. In: Coffield F, (ed.). *Differing Visions of a Learning Society: Research Findings Volume 1*. Bristol: The Policy Press, 2000, p. 231-63.
381. Sadideen H and Kneebone R. Practical Skills Teaching in Contemporary Surgical Education: How can Educational Theory be applied to Promote Effective Learning? *The American Journal of Surgery*. 2013; 204: 396-401.
382. Cade L and Polglase T. The Learning Experience on Placement. In: Polglase T and Treseder R, (eds.). *The Occupational Therapy Handbook: Practice Education*. Cumbria: M&K Publishers, 2014, p. 39-52.
383. Association of Canadian Occupational Therapy Regulatory Organisations. Essential Competencies of Practice for Occupational Therapists in Canada. Third ed. British Columbia2011, p. 1-36.
384. Pfeffer J and Sutton RI. The Knowing-Doing Gap. Harvard Business School, 2000, p. 1-8.
385. Rynes Sl, Bartunek J and Draft RL. Across the Great Divide: Knowledge Creation and Transfer between Practioners and Academics. *Academy of Management Journal*. 2001; 44: 340-55.
386. Bennett S, Mc Kenna K, Roger S, Strong J and Ziviani J. Perceptions of Evidence-based Practice: A Survey of Australian Occupational Therapists. *Australian Occupational Therapy Journal*. 2003; 50: 13-22.
387. Grimshaw J, Eccles P, Hill S and Squire J. Knowledge Translation of Research Findings. Open access2012, p. 1-17.

388. Creswell J. The Selection of a Research Design. In: Creswell J, (ed.). *Research Design: Qualitative, Quantitative and Mixed Method Approaches*. Los Angeles: Sage, 2009c, p. 3-22.
389. Harden R. AMEE Guide No 21: Curriculum Mapping: a Tool for Transparent and Authentic Teaching and Learning. *Medical Teacher*. 2001; 23: 123-37.
390. Plaza CM, Draugalis JR, Slack M, Skrepnek GH and Sauer KA. Curriculum Mapping in Program Assessment and Evaluation. *American Journal of Pharmaceutical Education*. 2007; 71: 1-8.
391. Robley W, Whittle S and Murdoch-Eaton D. Mapping Generic Skills Curricula: A Recommended Methodology. *Journal of Further and Higher Education*. 2005; 29: 221-31.
392. Sarkisian GV and Taylor S. A Learning Journey I: Curriculum Mapping as a Tool to Assess and Integrate Community Psychology Practice Competencies in Graduate Education Programs. *Global Journal of Community Psychology Practice*. 2013; 4: 2-9.
393. Mazurat R and Schonwetter DJ. Electronic Curriculum Mapping: Supporting Competency- based Dental Education. *Journal of Canadian Dental Association*. 2008; 74: 886-9.
394. Holycross J. Curriculum Mapping-An Essential Tool for Curriculum Development. *Journal of Physician Assistant Education*. 2006; 17: 61-4.
395. Nielsen S, Stube J and Bass G. Bridging the Gap: Evaluation of a Pilot Project to Facilitate use of Psychosocial Strategies Across an Occupational Therapy Curriculum. *Occupational Therapy in Health Care*. 2015; 29: 126-38.
396. Bester M. Curriculum Mapping: A possible technology enhanced curriculum review approach. *South African Technology Network*. Bloemfontein: South African Technology Network (SATN), 2011.
397. Patrick CL. Student Evaluations of Teaching: Effects of the Big Five Personality Traits, Grade and Validity Hypothesis. *Assessment and Evaluation in Higher Education*. 2011; 36: 239-49.
398. Ricketts B. What does it mean to be organized? *The Mess Doctor* 2015: (2012, accessed September 15 2012).
399. Tartakovsky M. 10 Traits of Highly Productive People2015: (2011, accessed 18.02.2015).
400. Goldberg LR. An Alternative "Description of Personality": The Big-Five Factor Structure. *Journal of Personality and Social Psychology*. 1990; 59: 1216-29.

401. Caprara G, Vecchione M, Guido A, Gerbino M and Barbaranelli C. The Contribution of Personality Traits and Self Efficacy Beliefs to Academic Achievement: a Longitudinal Study. *British Journal of Educational Psychology*. 2010; 81: 78-81.
402. Vaughan W. Educating for Diversity, Social Responsibility and Action: Pre-service Teachers Engage in Immersion Experiences *Journal of Cultural Diversity*. 2005; 12: 26-30.
403. Forwell S, Whiteford G and Dyck I. Cultural Competence in New Zealand and Canada: Occupational Therapy Students' Reflections on Class and Fieldwork curriculum. *Canadian Journal of Occupational Therapy*. 2001; 68: 90-103.
404. Machiko T. Methods of Analysis: From Univariate to Multivariate Statistics. In: Kielhofner G, (ed.). *Research in Occupational Therapy: Methods of Inquiry for Enhancing Practice*. Philadelphia: FA Davis, 2006, p. 729.
405. Christie G, Black S, Dunbar L, Pulford J and Wheeler A. Attitudes, Skills and Knowledge Change in Child and Adolescent Mental Health Workers Following AOD Screening and Brief Intervention Training. *International Journal of Mental Health and Addiction* 2013; 11: 232-46.
406. Hancox K, Lynch L, Happell B and Biondo S. An Evaluation of an Education Program for Clinical Supervision. *International Journal of Mental Health Nursing*. 2004; 13: 198-203.
407. Gordon M. A Review of the Validity and Accuracy of Self-Assessments in Health Professions Training. *Academic Medicine*. 1991; 66: 762-9.
408. Radecki C and Jaccard J. Perceptions of Knowledge, Actual Knowledge and Information Search. *Journal of Experimental Social Psychology* 1995; 31: 107-38.
409. Dunning D, Heath C and Suls J. Flawed Self-Assessment: Implications for Health, Education and the Workplace. *Psychological Science in the Public Interest*. 2004; 5: 69-106.
410. Sadlo G. Using Problem-Based Learning during Student Placements to Embed Theory in Practice. *Problem Based Learning: Health*. 2014; 2: 6-19.
411. Bartholomai S and Fitzgerald C. The Collaborative Model of Fieldwork Education: Implementation of the Model in a Regional Hospital Rehabilitation Setting. *Australian Journal of Occupational Therapy*. 2007; 54: S23-S30.

APPENDIX A

A:1 PHILOSOPHY OF OCCUPATIONAL THERAPY EDUCATION

"*Occupational therapy education is grounded in the belief that humans are complex beings engaged in a dynamic process of interaction with the physical, social, temporal, cultural, psychological, spiritual and virtual environments. Through active engagement within the internal and external environments, humans evolve, change and adapt. Occupational therapy educators advocate the Use of occupation to facilitate health promoting growth, change and/or adaptation with the goal of participation in meaningful occupation which supports survival, self-actualization, occupational balance and quality of life.*

The profession of occupational therapy is unique and dynamic, grounded in core principles of occupation and is influenced by emerging knowledge and technologies. Thus, the education of future occupational therapists mast consistently reinforce the development of new knowledge supporting the Use of occupation, the application of clinical reasoning based on evidence, the necessity for life-long learning and the improvement of professional knowledge and skills.

Occupational therapy education promotes competence through educational experiences that foster the occupational therapists' practice potential and scholarship development. Occupational therapy educators Use active learning that engages the learner in a collaborative process that builds on prior knowledge and experience and integrates professional academic knowledge, experiential learning, clinical reasoning and self-reflection. Occupational therapy education promotes integration of philosophical and theoretical knowledge, values, beliefs, ethics and technical skills for broad application to practice in order to improve human participation and quality of life for those individuals with and without impairments and limitations.

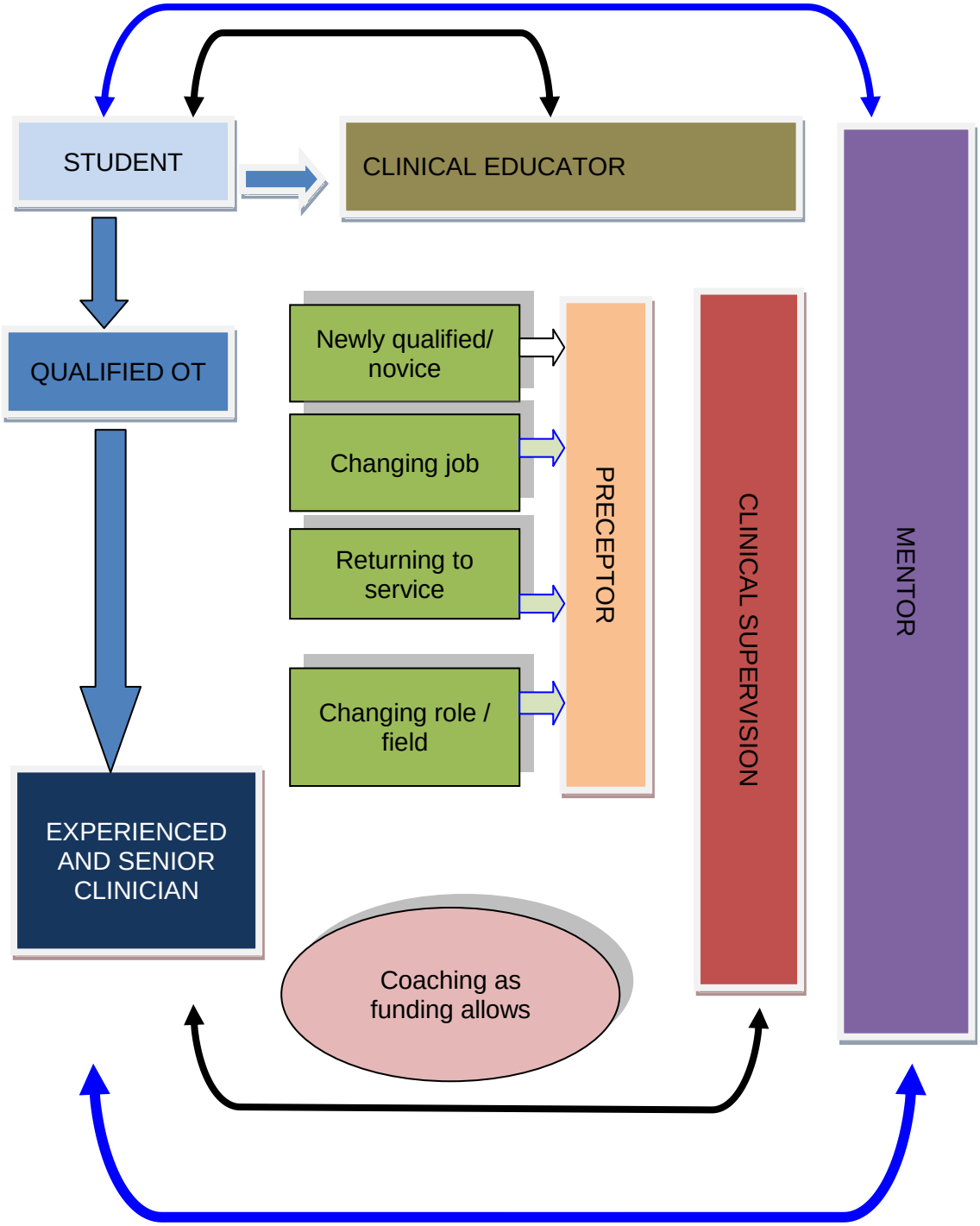
The occupational therapy education process emphasizes continuing critical inquiry in order that occupational therapists be well prepared to function and thrive in the dynamic environments of diverse and multicultural societies, Using the power of occupation as the primary method of evaluation, intervention and health promotion" [64] p 678.

A:2 DIFFERENCES BETWEEN TERMS USED IN CLINICAL EDUCATION

	CLINICAL EDUCATOR	CLINICAL SUPERVISOR	MENTOR	PRECEPTOR	COACH
In RSA	Usual and formally organised but not officially recognised	Unusual although considered professionally desirable	Informal	May occur informally but seldom termed preceptorship	Unusual within professional structures but may be funded by organisations wishing to develop non-professional skills.
Qualification	Fully Registered OT	Occupational therapist with more experience than supervisee	Any professional person who is selected by the mentee	Occupational therapist on a higher post level with more experience than preceptee	Professionally trained coach
Relationship	Educative, enabling and ensuring relationship	Clinically enabling relationship	Intimate , personal enabling relationship	Functional and enabling relationship	Functional and enabling relationship
Selection	Occurs at clinical training sites	Informal if it happens at all.	Selected by the mentee, can be facilitated by Professional Association	Allocated by department head or self-appointed	Hired
Duration	3-5 weeks	Determined by employment context	Maybe long term but dependent on needs	Short term and dependent on support needs and experience of the preceptee	Contractual
Purpose	Providing learning opportunities to develop professional knowledge, skills and attitudes within an OT process, evaluation, and support for professional development	Development of reflective and evidence bussed professional skills, career planning, prevention of compassion fatigue.	Facilitates professional growth and development	Role modelling and information holder of site specific roles, processes and procedures	Development of critical/generic employee skills other than profession-specific skills

[Adapted from Rose and Best (2005)]

A:3 IDEAL PROFESSIONAL SUPPORT STRUCTURE



APPENDIX B

B:1 EXIT LEVEL OUTCOMES FOR BSc OT PROGRAMME

OUTCOMES REGISTERED WITH SAQA FOR THE BSc OCCUPATIONAL THERAPY (WITWATERSRAND COURSE

The purpose of the qualification is to:

- prepare a generalist occupational therapist at the Bachelor of Science degree level.
- enable the graduate to register as an occupational therapist with the Health Professional Council of South Africa.
- enable the occupational therapist to work at the entry level in any site where people are at risk or have occupational dysfunction in institutions or the community, in both the public and private sectors.
- develop expertise appropriate to the Southern Africa context, in keeping with national and international standards.
- develop an occupational therapist that is clinically competent, critical of his / her practice and conscious of his/her responsibilities for continued professional development.

Exit Level Outcomes and the Associated Assessment Criteria Specific Outcomes:

2.1 PROBLEM SOLVING WITH CLINICAL REASONING

2.1.1 Exit Level Outcome

The qualifying learner is competent in the use of problem-solving techniques to resolve clinical problems using clinical reasoning, critical and lateral thinking.

2.1.2 Associated Assessment Criteria

The qualifying learner is able to:

identify, assess, formulate, solve and critically evaluate complex, concrete and abstract clinical problems related to the development of activities health, occupational dysfunction, impairment, disability and service provision using appropriate professional knowledge and skills.

solve problems of an individual, group, organization or community nature in a creative and innovative way, especially within the context of the sectors in South Africa, in which occupational therapists practice.

deal with contingencies as well as with routine work.

cope with uncertainty and adopt a flexible approach in clinical situations.

2.2 APPLICATION OF FUNDAMENTAL AND OCCUPATIONAL THERAPY KNOWLEDGE

2.2.1 Exit Level Outcome

The qualifying learner is competent to apply fundamental and specific knowledge acquired to identify and solve a client's or community's problems in activities health or occupational dysfunction within the context of their life and to meet their individual needs.

2.2.2 Associated Assessment Criteria

With the available evidence, the qualifying learner identifies and solves problems by applying:

theories and principles learnt from appropriate basic sciences and humanities to activities health and occupational dysfunction.

theories and principles from fundamental and medical (clinical) disciplines to activities health and occupational dysfunction.

theories, models and principles of occupational science and occupational therapy to occupational dysfunction, impairment and disability.

knowledge of the context of the client's environment to the management of occupational dysfunction, impairment of disability.

knowledge of the health system and its management.

knowledge gained through the critical evaluation of medical and occupational therapy literature and the effective use of a modern library in order to keep up-to-date with new developments, to determine evidence for best practice.

knowledge gained through the critical evaluation of medical and occupational therapy literature and the effective use of a modern library in order to keep up-to-date with new developments, to determine evidence for best practice.

2.3 INVESTIGATIONS, EXPERIMENTS AND DATA ANALYSIS

2.3.1 Exit Level Outcome

The qualifying learner is competent to conduct, apply and critique research appropriate to activities health, occupational dysfunction, occupational therapy and rehabilitation.

2.3.2 Associated Assessment Criteria

The qualifying learner is competent to:

establish an occupational therapy intervention database to keep professional knowledge current and independently collect evidence for the best practice.

critically evaluate relevant professional literature relating to occupational therapy practice, health, disability and the service management issues.

plan, conduct evaluate and record investigations and experiments relevant to occupational science, occupational therapy and disability, using appropriate research methodology, attaining ethical approval and following approved research procedures under the guidance of a supervisor.

seek guidance of more experienced researchers.

gather, analyse, interpret and derive information from data in order to identify and manage problems relating to activities health, occupational dysfunction, impairment, disability and service delivery.

record research findings in a research report, so as to disseminate knowledge.

2.4 GENERAL AND PROFESSIONAL MULTIDISCIPLINARY PARTNERSHIPS, COMMUNICATION, AND TEAM WORK

2.4.1 Exit Level Outcome

The qualifying learner is competent to:

communicate effectively with all people involve in service provision and in the solution of professional problems.

appreciate the value of multidisciplinary partnership for the benefit of services to the client, work in a team and understand the value of not working in isolation.

to co-operate effectively with other team members.

2.4.2 Associated Assessment Criteria

The qualifying learner is competent to:

communicate effectively with clients, care givers / parents, health team members, peers and members of the community using appropriate communication styles and methods.

develop therapeutic relationships with clients which enables independence.

conduct a professional relationship with clients, which reflect client centeredness and caring.

facilitate interaction among people of differing backgrounds, in wide range of situations.

deal effectively with communication difficulties and blocks to communication.

establish partnerships with other members of the multidisciplinary team for the benefit of the client and his caregivers.

collaborate with other disciplines for effective service provision.

work effectively as an individual, as a team member, taking on leadership and / or facilitator roles where appropriate.

appreciate and respect the essential role of other health workers.

recognize the importance of both professional and multidisciplinary teams and help develop and maintain such teams.

be accountable to clients, caregivers / parents, team members, employers, the profession and the community.

2.5 AWARENESS OF POLITICAL/CIVIC RESPONSIBILITY WITHIN THE PROFESSIONAL CONTEXT

Exit Level Outcome

The qualifying learner is aware of their responsibility towards the promotion and development of the occupational therapy profession in particular and rehabilitation in general.

Associated Assessment Criteria: The qualifying learner is competent in:

raising the awareness of occupational risk factors, occupational dysfunction and disability in the population.

being an advocate for people with occupational risk factors, occupational dysfunction and disability and disabled peoples organizations and motivating for change, improved access to appropriate effective services, at a reasonable cost, as well as rehabilitation, and independence in everyday activities.

creating opportunity of empowerment of clients/caregivers of clients to act to satisfy their needs and enact their rights, as defined in the constitution.

participate in informal political debate and understand the impact this has on occupational therapy and service provision, as well as to influence and change policy.

understanding the importance of active participation in professional structures/organizations.

accessing occupational therapy policy statements on issues of public interest.

initiating and participating in the provision of information on health care and occupational therapy for the public and other health workers.

using community resources and co-operating with community organizations for the treatment and benefit of disabled people.

aligning occupational therapy programmes to meet national priorities and changing health needs.

2.6 INSTILL A CULTURE OF LIFELONG LEARNING FOR PROFESSIONAL AND ACCOUNTABILITY.

2.6.1 Exit Level Outcome

The qualifying learner understands the need for lifelong learning and the importance of professional accountability.

2.6.2 Associated Assessment Criteria

The qualifying learner is competent to:

learn effectively from a range of situations, understanding the value of having an enquiring mind and a desire to learn.

understand the importance of maintaining professional competence and keeping up-to-date with professional knowledge and skills.

evaluate his/her own performance in order to identify her/his own professional development needs and ways to fulfil these needs.

contribute to professional knowledge by disseminating professional knowledge and research findings.

awareness of the annual re-registration for Health Profession Council of South Africa.

2.7 PROFESSIONAL ETHICS AND PRACTICE OF PROFESSIONAL BEHAVIOUR: AND LEGAL ISSUES.

2.7.1 Exit Level Outcome

The qualifying learner understands the value of adherence to professional ethics and the regulations of the law in her/his practice.

2.7.2 Associated Assessment Criteria

The qualifying learner is competent to:

value people's worth as individuals.

understand and respect clients' rights.

act morally, professionally, ethically and to take responsibility within his/her own limits of competence and the scope of professional practice.

practice safely within the professional scope as defined by The Act.

keep up to date with the professional code of practice and SA legislation relating to the practice of occupational therapy within South Africa.

refer client to other professionals for help when appropriate.

understand the important of promoting and developing the profession and involvement in National Bodies.

know about the World Federation of Occupational Therapy.

2.8 MANAGERIAL SKILLS IN THE PRACTICE OF OCCUPATIONAL THERAPY

2.8.1 Exit Level Outcomes

The qualifying learner is competent to:

manage her daily practice as an occupational therapist.

understand the principles of managing an OT department / service.

understand the principles of managing a district based rehabilitation service.

work co-operatively with occupational therapy assistants and other support staff.

manage resources, equipment, funds, facilities in which he/she practices.

2.8.2 Associated Assessment Criteria

The qualified learner is competent to:

investigate the management of an OT service, identifying factors which interfere and assist with the running of a department and work within the prescribed management system.

keep systematic and accurate client, personal, departmental and service records relating to occupational therapy assessment, intervention and service and resources.

determine the methods of ordering equipment and expendables within a

determined budget and practicing principles of cost containment.

control stock.

understand the similarities and difference between a manager, leader and supervisor.

understand: theory of management, management processes and management techniques. principles of leadership and leadership styles, theory of supervision, the supervision process and techniques and when all of the above are appropriate.

recognize and handle conflict.

appreciate and recognize the role and value of the occupational therapy assistant within the occupational therapy / rehabilitation process.

comply with the legal responsibility in the supervision and development of the occupational therapy assistants.

provide in-service training for support staff.

develop programmes in line with rehabilitation services, national and provincial standards, policies and act.

2.9 THE METHODS, SKILLS, TOOLS AND INFORMATION TECHNOLOGY FOR OCCUPATIONAL THERAPY

2.9.1 Exit Level Outcome

The qualifying learner is competent to: use occupational therapy models, theories, process, principles, methods, skills and tools to promote occupational performance, social interaction activities health by designing, implementing, critically evaluating and modifying of occupational therapy programs for individuals and groups in consultation with clients and other multidisciplinary professionals and on the basis of best evidence.

2.9.2 Associated Assessment Criteria

The qualifying learner is competent to:

complete screening and comprehensive occupational therapy assessments relevant to activities health and occupational performance appropriate to the client's needs, the profession's codes of practice, and current legislation using a client cantered approach.

design and implement an occupational therapy program, with the client, considering the client's occupational profile socio-cultural background, environment, occupational dysfunction/risk factors, therapy needs, using appropriate models of practice and considering the best evidence of practice. The learner will use clinical reasoning to determine therapy which is appropriate and cost effective, and uses appropriate fundamental and specific OT knowledge.

critically evaluate and modify occupational therapy programs based on the client progress, prognosis, problems, model of practice and client /caregiver input.

develop treatment programmes based on the cause of occupational dysfunction, occupational therapy theoretical model and research.

co-ordinate the occupational therapy program with that offered by other service providers.

complete a basic analysis of the costs, relevance, effectiveness and efficiency of treatment programs.

identify community health needs relating to activities health and occupational dysfunction, and plan, implement and evaluate health promotion and dysfunction prevention programs.

teach skills to clients, their families, the community, other members of the health team and peers, using a wide variety to teaching methods

counsel clients on health, occupational dysfunction, occupational risk factors, disability and occupational therapy related issues.

critically review/research effectiveness of treatment and disseminate information to the occupational therapy community.

be critically aware of the need to consider personal, social, cultural, values and needs of those affected by occupational dysfunction resulting in impairment and disability, within the occupational therapy service.

APPENDIX C

C:1 APPROVAL OF RESEARCH BY THE FACULTY OF HEALTH SCIENCES

Faculty of Health Sciences
Medical School, 7 York Road, Parktown, 2193
Fax: (011) 717-2119
Tel: (011) 717-2745

Reference: Ms Tania Van Leeve
E-mail: tania.vanleeve@wits.ac.za
22 February 2011
Person No: 9003422H
PAG

Professor PA De Witt
P.O Box 2935
Bromhof
Randburg
2154
South Africa

Dear Professor De Witt

Doctor of Philosophy: Approval of Title

We have pleasure in advising that your proposal entitled "*Supervisor of the clinical work of BSc OT students by clinical occupational therapist*" has been approved. Please note that any amendments to this title have to be endorsed by the Faculty's higher degrees committee and formally approved.

Yours sincerely

Mrs Sandra Benn
Faculty Registrar
Faculty of Health Sciences

C:2 ETHICAL CLEARANCE

M110218

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Prof Patricia de Witt

CLEARANCE CERTIFICATE	**M110218**
PROJECT	Supervision of the Clinical work of BSc OT Students by Clinical Occupational Therapists.
INVESTIGATORS	Prof Patricia de Witt.
DEPARTMENT	School of Therapeutic Sciences/ Occupa Therapy
DATE CONSIDERED	25/02/3011
DECISION OF THE COMMITTEE*	Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 24/06/2011 **CHAIRPERSON** .....
(Professor PE Cleaton-Jones)

*Guidelines for written 'informed consent' attached where applicable
cc: Supervisor : Prof Alan Rothberg/J Bruce

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University.
I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to a completion of a yearly progress report.**

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES...

C:3 PERMISSION FROM GAUTENG DEPARTMENT OF EDUCATION AND HEALTH AND SOCIAL DEVELOPMENT

education
Department: Education
GAUTENG PROVINCE

Enquiries: Nomvula Ubisi (011)3550488

Date:	23 August 2011
Name of Researcher:	De Witt Patricia Ann
Address of Researcher:	22 Catalina Close
	Kelly Road
	Randburg 2154
Telephone Number:	0117911257/0828541470
Fax Number:	0117911257
Research Topic:	Supervision of the Clinical education of BSc OT Students by Clinical Occupational Therapists
Number and type of schools:	4 Institutions
District/s/HO	Any District

RE: APPROVAL IN RESPECT OF REQUEST TO CONDUCT RESEARCH

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

Permission has been granted to proceed with the above study subject to the conditions listed below being met, and may be withdrawn should any of these conditions be flouted:

The District/Head Office Senior Manager/s concerned must be presented with a copy of this letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study. The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.

A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.

CONDITIONS OF APPROVAL OF A RESEARCH STUDY PROPOSAL

health and social development
Department: Health and Social Development
GAUTENG PROVINCE

Vision of the Department

"To be the best provider of quality health and social services to the people in Gauteng"

POLICY, PLANNING AND RESEARCH (PPR)
Enquiries: Dr ML Likibi
Tel: +2711 355 3134
Fax: +2711 355 3675 Email: MupataL@gpg.gov.za

CONTACT DETAILS OF THE RESEARCHER	
Date	26 September 2011
Contact number	011 717 3703
Email	Paricia.dewitt@wits.ac.za
Researcher /Principal investigator (PI)	Prof Patricia de Witt
Supervisor	N/A
Institution	Wits University: school of therapeutic sciences/ occupational therapy
Research title	Supervision of the clinical work of BSc OT students by clinical occupational therapists

This approval is granted only for a research proposal submitted to GDHSD by Prof P A de Witt "Supervision of the clinical work of BSc OT students by clinical occupational therapists. "

C:4 PERMISSION FROM DEAN FOR STUDENT PARTICIPATION

Faculty of Health Sciences

7 York Road, Parktown 2193, South Africa • Tel: +27 11 717-2000 • Fax: +27 11 643-4318 • Telegrams: 'Witsmed'

Dear Prof De Witt

Your application dated 08/August/2011 is acknowledged. I am pleased to inform you that based on the Ethics Clearance NO: M110218, I confirm that Faculty permission is granted for you to undertake the study entitled: "Supervision of the clinical work of BSc OT students by clinical occupational therapists."

I would be most interested in your findings.

Best wishes for you in your research.

Yours sincerely

Ahmed A Wadee

DEAN

Faculty of Health Sciences

Wits Medical School

University of the Witwatersrand

APPENDIX D

STUDY 1

D:1 STUDENT INFORMATION SHEET

Information Sheet for Participation in a Focus Group in Study 1:
4th Year Students

Dear 4th year Student,

My name is Pat de Witt and I am a registered PhD student at the University of the Witwatersrand. I am undertaking a study entitled:
"*Title of Study: Clinical education of B Sc OT students by clinical occupational therapists: a mixed method study.*

The study, which has been approved by the Faculty of Health Sciences Post Graduate Committee and the University Human Research Ethics Committee (Medical), will take part in three steps.

I am inviting you to participate in Step 1 of the research which aims to:
To determine your perceptions of clinical education on the Wits teaching platform.
If, you agree to participate, this would involve your being part of a Focus Group with 5 other students to explore from your perspective the challenges and benefits of the clinical supervision to 4th year OTs so as to determine your experience of the teaching and learning in your .clinical blocks this year

The Focus group will take approximately an hour and a half. If the data is not saturated in a single group, a second or third group may be necessary.

With your permission all focus groups will be recorded for purposes of analysis. Due to the nature of a focus group it is not possible to assure confidentiality of either your identity or your contribution to the focus group.

Recordings of the focus groups will be used only for the purposes of this study and will be kept in a secure location for 2 years after the research has been completed should the research be published and for 6 years if the work is not as required by the HPCSA. The recordings will then be deleted.

Your participation is entirely voluntary and you can withdraw at any time without consequence. As I will be on sabbatical leave in the time period that these focus groups will take place, I will have no teaching responsibility and will not be in a position to influence your marks in any way.

Feedback will be available on request.

Should you have any queries you may contact me on 082 854 1470 or you can email me at patricia.dewitt@wits.ac.za. You can also contact either of my two supervisors Prof. Alan Rothberg or Prof Judy Bruce on 011 717 -2063. If you have any other queries or complaints about the research you may contact the secretariat of the Human Research Ethics Committee (Medical) Anisa Keshav on 011 717-1234.

Regards,
Pat de Witt (Adj. Prof)
Researcher

D:2 INFORMATION SHEETS FOR OT PARTICIPANTS

Information Sheet for Participation in a Focus group in Study 1: Clinical and University supervisors

Dear Colleague,

My name is Pat de Witt and I am a registered PhD student at the University of the Witwatersrand. I am undertaking a study entitled:
"*Clinical education of B Sc OT students by clinical occupational therapists: a mixed method Study*."

The study, which has been approved by the Faculty of Health Sciences Post Graduate Committee and the University Human Research Ethics Committee (Medical), will take part in three steps.

I am inviting you to participate in Study 1 of the research which aims to:
To determine your perceptions of clinical education on the Wits teaching platform.
If, you agree to participate, this would involve your being part of a Focus Group with 5 other clinical supervisors/ university supervisors to explore from your perspective the challenges and benefits of the clinical education of 4th year OTs.

The Focus group will take approximately an hour and a half. If the data is not saturated in a single group, a second or third group may be necessary.

With your permission the focus groups will be recorded for purposes of analysis. Due to the nature of a focus group it is not possible to assure confidentiality of either your identity or your contribution to the focus group.

Recordings of the focus groups will be used only for the purposes of this study and will be kept in a secure location for 2 years after the research has been completed if it is published and 6 years if it is not, as required by the HPCSA. The recordings will then be deleted.
Your participation is entirely voluntary and you can withdraw at any time without consequence.

Feedback will be available on request.

Should you have any queries you may contact me on 082 854 1470 or you can email me at patricia.dewitt@wits.ac.za. You can also contact either of my two supervisors Prof. Alan Rothberg or Prof Judy Bruce on 011 717 -2063. If you have any other queries or complaints about the research you may contact the secretariat of the Human Research Ethics Committee (Medical) Anisa Keshav on 011 717-1234.
Regards,

Pat de Witt (Adj. Prof)
Researcher

D:3 CONSENT FOR PARTICIPATION

Consent form for Participation in a Focus group in Study 1 of the research

I _____ agree to take part in the study entitled:
*"**Clinical education of B Sc OT students by clinical occupational therapists: a mixed method study.**"*

The person who has recruited me has explained the research and what will be required of me and the time frame that participation in the research will take.

I am aware that my participation is entirely voluntary and that I may withdraw at any time and without consequence.

I am aware of who I may contact should I have any questions or concerns.

I am aware that I may request feedback from the researcher.

Signed:_____

Date:_____

D:4 CONSENT FOR AUDIO-TAPING

Consent form for audio taping

I _____ agree to take part in a Focus group that will be audio taped in the study entitled:
"***Clinical education of B Sc OT students by clinical occupational therapists: a mixed methods study.***"

The researcher has explained that the audio tapes will be used solely for the purpose of the research and will be stored safely according to the HPCSA regulations and will be destroyed after six years if the research is not published and after 2 years if it is.

The researcher has explained and what will be required of me and the time frame that participation in the research will take.

I am aware of the ethical considerations regarding the audio taping of the focus groups and the fact that my identity cannot be kept confidential within the Focus group. However the data will be reported so that individual focus group member's contributions to the group cannot be identified.

I am aware who I may contact should I have any questions or concerns.

Signed:_____

Date:_____

D:5 DEMOGRAPHIC QUESTIONNAIRE COMPLETED STUDENT FOCUS GROUP PARTICIPANTS

RESEARCH: "CLINICAL EDUCATION OF BSC OT STUDENTSBY CLINICAL OCCUPATIONAL THERAPISTS: A MIXED METHOD STUDY"

To be completed by the students participating in a Focus group.

PARTICIPANT NO: ☐

Instructions:

Make a cross in the appropriate block.

DEMOGRAPHIC INFORMATION

Age: ☐☐

Was OT your first choice? Y☐ N☐

Did you come directly into the OT course from school? Y☐ N☐

If the answer is no to the above question what did you do before you were enrolled to do OT?

_____

_____

_____

Number of years in the course ☐

Rate your academic performance this year: Upper third of class ☐

Middle third of the class ☐

Lower third of class ☐

Rate your clinical performance this year: Upper third of class ☐

Middle third of the class ☐

Lower third of class ☐

In which fieldwork block did you learn the most clinically this year?

Physical	Block 1	☐	Block 2	☐
Mental Health	Block 1	☐	Block 2	☐
Paediatric	CP	☐	Clinic	☐
Public Health	Urban	☐	Rural	☐

Can you identify any reason for this?

_____

In which field of practice did you learn the least clinically this year?

Physical	Block 1	☐	Block 2	☐
Mental Health	Block 1	☐	Block 2	☐
Paediatric	CP	☐	Clinic	☐
Public Health	Urban	☐	Rural	☐

Can you identify any reason for this?

Thank you for your participation and this information will remain confidential.

D:6 DEMOGRAPHIC QUESTIONNAIRE FOR CLINICAL OCCUPATIONAL THERAPISTS

RESEARCH: "CLINICAL EDUCATION OF BSC OT STUDENTSBY CLINICAL OCCUPATIONAL THERAPISTS: A MIXED METHOD STUDY"

To be completed by the **clinical occupational therapists** participating in Focus group.

PARTICIPANT NO: ☐

Instructions:

Make a cross in the appropriate block.

DEMOGRAPHIC INFORMATION

Age:

20-30 ☐ 30-40 ☐ 40-50 ☐ 50-65 ☐

Undergraduate degree obtained from:

University of Witwatersrand ☐

University of Pretoria ☐

University of Cape Town ☐

University of Free State ☐

University of Limpopo (MEDUNSA) ☐

University of Stellenbosch ☐

University of Western Cape ☐

University of Kwazulu Natal ☐

Postgraduate experience

Post graduate OT diploma ☐

Masters degree ☐

Other_____

Years of work experience:

less than 6 months ☐

6 months-l year ☐

1-3 years ☐

4-5years ☐

5-10 years ☐

10 + years ☐

20+ years ☐

Field of practice:

Physical ☐

Mental Health ☐

Paediatric ☐

Public Health ☐

Other_____

Sector in which you work:

Public Sector: Health ☐

Public Sector: Education ☐

Private Practice ☐

NPO/NGO ☐

Other_____

Position:

Community Service Therapist ☐

Grade 1(1-10) ☐

Grade 11 (11-20) ☐

Grade III (21+) ☐

Supervisory OT ☐

Assistant Director ☐

Other: _____

Post:

Full time ☐

Part time ☐

Number of students that you have supervised in this academic year ☐☐

Thank you for this information.

D:7 DEMOGRAPHIC QUESTIONNAIRE FOR UNIVERSIY PARTICIPANTS

RESEARCH: "CLINICAL EDUCATION OF BSC OT STUDENTSBY CLINICAL OCCUPATIONAL THERAPISTS: A MIXED METHOD STUDY"

To be completed by the **university staff** participating in Focus group.

PARTICIPANT NO: [ ]

Instructions:

Make a cross in the appropriate block.

DEMOGRAPHIC INFORMATION

Age:

20-30 ☐ 30-40 ☐ 40-50 ☐ 50-65 ☐

Undergraduate degree obtained from:

University of Witwatersrand ☐

University of Pretoria ☐

University of Cape Town ☐

University of Free State ☐

University of Limpopo (MEDUNSA) ☐

University of Stellenbosch ☐

University of Western Cape ☐

University of Kwazulu Natal ☐

Postgraduate experience

Post graduate OT diploma ☐

Masters degree ☐

PhD ☐

Other_____

Years of experience in the education of students:

1-3 years ☐

4-5years ☐

5-10 years ☐

10 + years ☐

20+ years ☐

Field of practice:

Physical ☐

Mental Health ☐

Paediatric ☐

Public Health ☐

Other_____

Post:

Full time ☐

Part time ☐

Number of students that you have supervised in this academic year ☐☐

Thank you for completing this information.

D:8 PROTOCOL USED FOR FOCUS GROUPS

ORGANISATION OF THE FOCUS GROUPS

There will be 3 homogeneous focus groups: one of each of the following cohorts of participants: clinical supervisors, students and academic staff.

Selection of participants

Eight participants for each focus group will be selected according to the protocol accepted by the committee on human ethics.

Date and time

Focus groups are to be held on 6th and 7th October.

Venue

Focus groups will be held in the meeting room in the department. Participants will be seated around the oval table to promote good communication.
The facilitators and research assistant will be seated at each head of the table.
Refreshments will be made available to the participants.
The audio-taping equipment will be set up by the e-learning team.
Pens, paper and a flip chart will be available.

Facilitation of the focus groups

The researcher will be responsible for the group content; will record key concepts on the flip chart and the time keeping.

The research assistant will record the field notes on the group dynamics including the nature and quality of the interaction of the participants, engagement with the topic, ability of participants to introduce both positive and negative points, support for each other, cohesion, conflict and decision making, physical and emotional climate, productivity of the group, locomotion and leadership and leadership/facilitation techniques.

Group structure

The same group structure is planned for each group.
Introduction (5 mins)
Introduction of participants (probably only necessary for the clinical educators)
Outline of the research as outlined in the information sheet

Highlight the ethical considerations and the signing of the consent forms(to participate and to agree to audio taping)
Completion of the demographic information
Purpose of the Focus Group (5 mins)

The researcher will explain that the purpose of the focus group is to explore each participants and their collective understanding, knowledge, experience, feeling, beliefs and gauge reaction to the complexities of clinical education of OT students in South Africa in general and specifically on the Wits academic platform. The purpose is not to get agreement about the issues but to identify and unpack the issues from their perspective. It does not matter if the issue is positive or negative we would like to hear about it.

It is hoped that this will not be a question and answer session but a conversation with an open and interactive dialogue between the participants where the common factor is that you are all clinical educators/students/academics but in different contexts.

Normal group norms will also apply: cell phones off, speak one at a time, give everybody a chance, ask questions for clarity, you can disagree.

The facilitator will not participate in the discussion other than to listen and understand, but will ask, from time to time, for more discussion/ clarity/ reformulate so the issue is clear.

Ice breaker (5 mins.)
Work in dyads: What they understand by the term “clinical education” and write on 2 different coloured cards the two priority components of this term from their perspective.
Body of the group (60mins)
Topics on the cards will be used to direct this discussion.
Closure (15 mins)

Reflection on the group process including the confidentiality, interpretation of the data and member checking.

By way of summary each participant to highlight the two issues that they will take away from the discussion.

Thanks

APPENDIX E

STUDY 2

E:1 INFORMATION SHEET FOR UNIVERSITY PARTICPANTS

Dear Colleague 20th July

My name is Pat de Witt and I am a registered PhD student at the University of the Witwatersrand.

I am undertaking a study entitled:
"*Clinical education of B Sc OT students by clinical occupational therapists: a mixed method study."*

The study, which has been approved by the Faculty of Health Sciences Post Graduate Committee and the University Human Ethics Research Committee (Health), will take part in three steps:
To determine how clinical occupational therapists are currently trained and supported in the supervision of occupational therapy students and whether this training is sufficient and helpful.
To determine the skill set of a clinical supervisor based on the literature and if a gap supervision skills exists OT supervisors and whether additional training is needed.
To develop a clinical skills training programme and evaluate its effectiveness.

I am inviting you to nominate an education expert from your department to participate in the second step of this study. They will be required to participate in a semi-structured telephonic interview which will take about half an hour of your time. The questions relate to aspects of your undergraduate curriculum that might prepare future OTs for the role of clinical educator and your view of the clinical education on your teaching platform. The questionnaire that will be completed during the interview is attached for your perusal.

Please will your forward me the name and contact details of a willing participant that I might organise an interview at their convenience.

Their participation is entirely voluntary and you can withdraw at any time without consequence.

Your identity and all information that you contribute to the study will remain confidential.
Feedback will be available on request.

Should you have any queries you may contact me on 082 854 1470 or you can email me at patricia.dewitt@wits.ac.za. You can also contact either of my two supervisors Prof. Alan Rothberg or Prof Judy Bruce on 011 717 -2063. If you have any other queries or complaints about the research you may contact the secretary of the Human Research ethics committee Anisa Keshav on 011 717-1234.

Regards,

Pat de Witt

E:2 FINAL QUESTIONNAIRE FOR UNIVERSITY PARTICIPANTS

Research: "*CLINICAL EDUCATION OF BSc OT STUDENTS BY CLINICAL OCCUPATIONAL THERAPISTS: A MIXED METHOD STUDY*

QUESTIONNAIRE FOR UNIVERSITY DEPARTMENTS

Purpose: To determine the training of and support for South African OTs in clinical supervision skills by training institutions.

Demographic information

University:

Degree:

Date of interview:

A. TRAINING OF UNDERGRADUATE STUDENTS TO PREPARE THEM TO BE CLINICAL SUPERVISORS

1. Knowledge

Is any theoretical information on clinical supervision of OTs included in the OT undergraduate programme? Yes ☐ No ☐

If yes, are there specific learning outcomes (request copies)

_____

_____

_____

_____

_____

_____

In what year is the information presented?

_____

_____

What is the qualification of the person who presents this information?

_____

_____

_____

How is the information presented (in what format)?

_____

_____

_____

_____

How is this information examined? (Request copies of evaluations)

_____

_____

_____

Number of hours dedicated to this information per year and in total.

Per year ☐ In total ☐

2. Skills

Are there any learning activities within the OT undergraduate course that allow OTS to practice these skills? Yes ☐ No ☐

If yes, describe these activities and request protocols.

_____

_____

_____

_____

_____

_____

_____

In which year is this done? 1 2 3 4

How is this done?

_____

_____

_____

Is this examined? Yes ☐ No ☐

If yes, how is this examined? (Request documentation)

_____

_____

_____

3. Attitudes

Are there any specific attitudes that you develop in the OT students with respect to Clinical supervision during the OT undergraduate course? Yes ☐ No ☐

If yes, list them

_____

_____

_____

_____

How do you do this?

_____

_____

_____

_____

When do you do this? ☐

In your opinion is this sufficient background for OTs to be clinical supervisors when they are qualified? Yes ☐ No ☐

B. TRAINING OF QUALIFIED OT CLINICIANS TO SUPERVISE OT STUDENTS AT YOUR UNIVERSITY

What training does your department provide to clinical OTs responsible for the clinical education of your students? (Request documents if they are available)

_____

_____

_____

_____

_____

_____

When is this training provided?

_____

_____

_____

How long is the training?

_____

_____

_____

To whom is it provided?

_____

_____

How often can the same person attend?

_____

_____

How long is the training?

_____

_____

Are your clinical supervisors rewarded in any way?

_____

_____

Besides the training described above is there any other support that your department offers offer your clinicians supervising your undergraduate students?

_____

_____

Thank you for your participation.

Regards,
Pat

STUDY 3

E:3 INFORMATION SHEET FOR CLINICAL DEPARTMENT HEADS/MANAGERS

Hi, 20th July

My name is Pat de Witt and I am a registered PhD student at the University of the Witwatersrand.

I am undertaking a study entitled:
"*Clinical education of B Sc OT students by clinical occupational therapists: a mixed method study."*

The study, which has been approved by the Faculty of Health Sciences Post Graduate Committee and the University Human Ethics Research Committee (Health), will take part in three steps:

To determine how clinical occupational therapists are currently trained and supported in the supervision of occupational therapy students and whether this training is sufficient and helpful.
To determine the skill set of a clinical supervisor based on the literature and if a gap supervision skills exists OT supervisors and whether additional training is needed.
To develop a clinical skills training programme and evaluate its effectiveness.

I am inviting you to participate in the second step of this study. You will be required to complete a questionnaire which will take about half an hour of your time. The questionnaire includes questions your involvement on the clinical education of students as well as your opinion of the challenges and benefits of your department being involved in the clinical education of Occupational therapy students.

Your participation is entirely voluntary and you can withdraw at any time without consequence.

Your identity and all information that you contribute to the study will remain confidential.
Feedback will be available on request.

Should you have any queries you may contact me on 082 854 1470 or you can email me at patricia.dewitt@wits.ac.za. You can also contact either of my two supervisors Prof. Alan Rothberg or Prof. Judy Bruce on 011 717 -2063. If you have any other queries or complaints about the research you may contact the secretary of the Human Research ethics committee Anisa Keshav on 011 717-1234.

Regards,

Pat de Witt

E:4 FINAL COPY OF THE QUESTIONNAIRE FOR OT MANAGERS

RESEARCH: "CLINICAL EDUCATION OF BSc OT STUDENTS BY CLINICAL OCCUPATIONAL THERAPISTS: A MIXED METHOD STUDY"

Questionnaire to be completed by **Head of Department** in training site where 4th year OT students do clinical practice or practice learning.

CODE ☐

Instructions:

Mark the appropriate block (s) with an X

One or more option may be appropriate.

PART 1: CLINICAL TRAINING SITE

Field of practice:

Physical ☐

Mental Health ☐

Paediatric ☐

Public Health ☐

Other_____

Sector:

Public Sector: Health ☐

Public Sector: Education ☐

OT private Practice ☐

NPO/NGO ☐

Other:_____

1.3 Total number of staff that:

Supervise 4th year OT students ☐☐

Do not supervise 4th year OT students ☐☐

1.4 Number of 4th year OT students trained in your department in the last year ☐☐

PART 2: THE CLINICAL TRAINING OF OCCUPATIONAL THERAPY STUDENTS

2.1 Number of years that your department has been involved in 4th year OT student training.

less than 2☐ less than 5☐ more than 5☐

2.2 Does the management of your hospital / placement have any role to play in the clinical supervision of OT students in your department? Yes☐ No☐

2.3 Does your department have any formal policy on the supervision of OT students? Yes☐ No☐

2.4 How is supervision of 4th year OT students managed in your department?

_____

_____

_____

_____

2.5 What role do you, as HOD, play in the supervision of 4th year students in your department?

_____

_____

_____

_____

2.6 How is the number of 4th year students you can accommodate in your hospital decided on?

_____

_____

_____

_____

PART 3: CLINICAL SUPERVISORS

3.1 Which of the following criteria are used when you decide which staff are to be involved in the supervision of the fourth year students:

Experience ☐
Workload of staff ☐
Where the staff member trained ☐
If the OT wishes to be involved or not ☐
Competence of staff in clinical supervision ☐
Attitude of staff towards students ☐
Supervisors rotate ☐
All staff has to supervise ☐
Staff does not supervise if they do not want not to ☐
Other (please specify)

_____

_____

_____

PART 4: BENEFITS AND CHALLENGES

4.1 As a manager of the OT service do you think there are any benefits in your dept being involved in the training of final year students? If yes, please list no more than 5 of the most important benefits from your perspective.

1_____
2_____
3_____
4_____
5_____

4.2 As a manager of the OT service do you think there are any challenges in your dept being involved in the training of final year students? If no please list no more than 5 of the most important challenges from your perspective.

1_____
2_____
3_____
4_____
5_____

Thank you very much for your participation, I really appreciate this.

Please can you either:
E- mail this back to the Wits OT dept secretary: leilane.mackay@ wits.ac.za;
Fax it back to 011 7173709; or
give it to the university supervisor when she comes to your institution.

With grateful thanks

Pat de Witt

STUDY 4

E:5 LETTERS TO DEPARTMENT HEADS FOR OT-CE PARTICIPATION

Head
Occupational Therapy Department

Dear

RE: RESEARCH: "CLINICAL EDUCATION OF B Sc OT STUDENTS BY CLINICAL OCCUPATIONAL THERAPISTS: A MIXED METHOD STUDY"

I would be very grateful if you and your department staff, who supervise the fourth OT year students at your school/practice, could please complete the following survey forms to assist me with collecting the data for my Ph. D.

This research has been approved by the University Graduate Committee, has had ethical clearance and has the approval of the Gauteng Department of Health and Gauteng Department of Education.

Please find included:
Information sheet explaining the research,
A questionnaire to be completed by the head of department,
A survey to be completed individually by all clinical OTs that supervise4th year OT students during any block during the year. If you as the head of department also supervises students will you also complete this survey form,
Copy of the letter of permission from the Department of Education and department of Gauteng department of education.

Please can you return the hard copies to Leilane the departmental secretary.

If you wish to complete this electronically there is a CD enclosed that has all the above information on it. The email address is on the bottom of the survey. I really do appreciate your assistance.

Many thanks
Kind regards

Pat de Witt

E:6 CLINICAL EDUCATOR INFORMATION SHEET

Information Sheet for the OT-CE questionnaire in Study 2 of the research

Hi,

My name is Pat de Witt and I am a registered PhD student at the University of the Witwatersrand.

I am undertaking a study entitled:
"*Clinical Education of B Sc OT students by clinical occupational therapists: a mixed methods study"*

The study, which has been approved by the Faculty of Health Sciences Post Graduate Committee and the University Human Ethics Research Committee (Medical), will take part in three steps:
To determine how clinical occupational therapists are currently trained and supported in the supervision of occupational therapy students and whether this training is sufficient and helpful.
To determine the skill set of a clinical supervisor based on the literature and if a gap in supervision skills exists among OT supervisors and whether additional training is needed.
To develop a clinical skills training programme and evaluate its effectiveness.

I am inviting you to participate in the first step of this study.

If you agree to participate, you would be required to complete a questionnaire which will take about half an hour of your time. The questionnaire includes questions on the training you have received on being a clinical educator as well as your knowledge and skills with respect to clinically supervising a 4th year OT student.

Your participation is entirely voluntary and you can withdraw at any time without consequence.

Your identity and all information that you contribute to the study will remain confidential.
Feedback will be available on request.

Should you have any queries you may contact me on 082 854 1470 or you can email me at patricia.dewitt@wits.ac.za. You can also contact either of my two supervisors Prof. Alan Rothberg or Prof. Judy Bruce on 011 717 -2063. If you have any other queries or complaints about the research you may contact the secretary of the Human Research ethics committee Anisa Keshav on 011 717-1234.

Regards,

Pat de Witt

E:7 CLINICAL EDUCATOR QUESTIONNAIRE

RESEARCH: "CLINICAL EDUCATION OF BSc OT STUDENTS BY CLINICAL OCCUPATIONAL THERAPISTS: A MIXED METHOD STUDY"

To be completed by the **clinical educators**

SUBJECT NO: ☐

Instructions:

Make a cross in the appropriate block.

In some sections more than one item may apply. Tick all that apply to you.

This survey is completely anonymous. Please answer as truthfully as possible.

PART 1: DEMOGRAPHIC INFORMATION

1.1 Age:

20-30 ☐ 30-40 ☐ 40-50 ☐ 50-65 ☐

1.2 Undergraduate degree obtained from:

University of Witwatersrand ☐

University of Pretoria ☐

University of Cape Town ☐

University of Free State ☐

University of Limpopo (MEDUNSA) ☐

University of Stellenbosch ☐

University of Western Cape ☐

University of Kwa-Zulu Natal ☐

1.3 Years of work experience:

less than 6 months ☐

6 months - 1 year ☐

1-3 years ☐

4-5 years ☐

5-10 years ☐

10 + years ☐

20+ years ☐

1.4 Field of practice:

Physical ☐
Mental Health ☐
Paediatric ☐
Public Health ☐
Other_____

1.5 Sector:

Public Sector: Health ☐
Public Sector: Education ☐
Private Practice ☐
NPO/ NGO ☐
Other_____

1.6 Position:

Community Service Therapist ☐
Grade 1(1-10) ☐
Grade 11 (11-20) ☐
Grade III (21+) ☐
Supervisory OT ☐
Assistant Director ☐
Other: _____

1.7 Post:

Full time ☐
Part time ☐

1.8 Time spent at clinical training site:

All day ☐
Half a day ☐ times per week
One Full day ☐ times per week

1.9 Number of students that you have supervised in the last year ☐☐

1.10 Number of students you are required to supervise in a block:

Minimum number of students that you have supervised at one time:

Maximum number that you have supervised at one time

1☐ 2☐ 3☐ 4☐ 5☐

PART 2: TRAINING AND SUPPORT RECEIVED TO FACILITATE YOUR ROLE AS A CLINICAL EDUCATOR

Mark the items either Y=Yes or N=No

2.1 In your undergraduate training were you taught any of the <u>following</u> information?

2.1.1 General theory about supervision ☐

2.1.2 Theory of clinical supervision of OT students ☐

2.1.3 Theory and principles of adult education ☐

2.1.4 Procedural information on supervision of OT students ☐

2.1.5 Ethics related to clinical supervision of OT students ☐

2.2 In your undergraduate course did you have any skills training in?

2.2.1 Peer evaluation ☐

2.2.2 Peer teaching ☐

2.2.3 Peer supervision ☐

2.3 Support and training from the Wits OT department:

Have you received information on any of the <u>following</u> topics?

2.3.1 Theory of supervision ☐

2.3.2 Education philosophy ☐

2.3.3 Education Principles ☐

2.3.4 Information on Curricula changes ☐

2.3.5 Updates on new information that is taught ☐

2.3.6 How to supervise in the context of a PBL curriculum ☐

2.3.7 Requirements for each block ☐

2.3.8 Criteria for passing and failing each of the clinical blocks ☐

2.3.9 Marking guidelines/ rubrics for:

Marking of student assessments ☐

Marking of student treatments ☐

Marking of written work ☐

2.3.10 Guidelines for giving students feedback ☐
2.3.11 dealing with conflicts with students ☐
2.3.12 helping students to learn from feedback ☐
2.3.13 helping students to develop a positive professional identity ☐
2.3.14 handling problem students ☐
2.3.15 supporting the failing or weak student ☐
2.3.16 facilitating the bright and challenging student ☐
2.3.17 how to translate theory into practice ☐
2.3.18 how to use clinical reasoning in practice ☐
2.3.19 how to teach students to be reflective about their practice ☐
2.3.20 dealing with diversity within the student body ☐

2.3.21 How often have you attended the annual clinicians meetings offered by the Wits OT Dept. before the beginning of Block 1 and Block 2?

Always ☐ Sometimes ☐ Never ☐

2.3.22 If you have attended do you find these meetings useful?

Yes ☐ Sometimes ☐ No ☐

2.3.23 Do the university supervisors give you help and support with the clinical supervision of the OT students when they do the mid and final case presentations?

As much as you need ☐ Not as much as you need ☐ Not at all ☐

2.3.24 How often do you phone the university supervisors re student's issues in a year?

Never ☐ less than 5 times ☐ more than 5 times ☐

2.4 From your current or previous places of employment have you received any of the following to assist and support you in the supervision of the OT students?

Indicate Y=Yes or N=No in the blocks provided:

2.4.1 Mentoring (long term enabling relationship for professional development) ☐
2.4.2 Coaching (trainer / instructor) ☐
2.4.3 Observing other clinical supervisors ☐
2.4.4 Sharing of theoretical information about the aspects of supervision ☐
2.4.5 Debriefing opportunities ☐
2.4.6 Supervision by line manager or other OT staff ☐

2.4.7 Strategies for coping with stress and prevention of burnout ☐

2.5 From your current or previous places of employment have you received any of the following to support you in your personal professional development?

Indicate either Y=Yes or N=No in the block provided:

2.5.1 Mentoring ☐
2.5.2 Coaching ☐
2.5.3 Observing other clinical supervisors ☐
2.5.4 Training opportunities ☐
2.5.5 Professional development opportunities ☐

PART 3: CHALLENGES AND BENEFITS

Mark the answers Y=Yes N=No in the block provided.

3.1 Challenges

The following are challenging when supervising the 4th Year students:

3.1.1 Planning learning activities and patients within for clinical blocks ☐
3.1.2 Administration relating to clinical blocks ☐
3.1.3 Students' attitude ☐
3.1.4 Students' demands ☐
3.1.5 Supporting and accommodating students ☐
3.1.6 Marking of case histories/written work ☐
3.1.7 Marking of daily treatment plans ☐
3.1.8 Verbal Feedback on performance ☐
3.1.9 Completing the ABC forms ☐
3.1.10 Finding time to observe students ☐
3.1.11 Finding time to meet with students to give feedback ☐
3.1.12 Managing own work load in addition to students ☐
3.1.13 Practical teaching application of theory to practice ☐
3.1.14 Knowledge students have is out of sync with practice ☐
3.1.15 Allocation of client's for examination purposes ☐
3.1.16 Expectations of the university department and staff ☐
3.1.17 Lack of communication with university supervisors ☐
3.1.18 Other (please specify_____

3.2 Benefits: Mark the answers Y=Yes N=No

3.2.1 Working with students gives me the opportunity to;

3.2.1.1 Collect CPD points ☐

3.2.1.2 Keep up to date with professional developments ☐

3.2.1.3 Gain promotional or other work opportunities ☐

3.2.1.4 Gain new and novel ideas ☐

3.2.1.5 Have help with treating the clients that you are responsible for ☐

3.2.1.6 Contribute to the development of the profession ☐

3.2.1.7 Other (please specify)_____

3.2.2 Working with students assists the department as they:

3.2.2.1 Are an extra pair of hands when short staffed ☐

3.2.2.2 Do tasks that staff do not have time to do ☐

3.2.2.3 Give clients individual attention that they would not otherwise get ☐

3.2.2.4 Other (please specify):_____

PART 4

What in your opinion would contribute to making the clinical education of the 4th year OT students more beneficial to you and the student?

_____

_____

_____

_____

Thank you very much for your participation. I appreciate you giving up your time to complete this survey.

Please can you either:

e mail this back to the Wits OT departmental secretary: leilane.mackay@wits.ac.za

fax it to 011 7173709

give it to the university supervisor when she comes to your institution.

Pat de Witt

Final Draft

APPENDIX F

STUDY 6

F:1 LETTERS TO SERVICE MANAGERS

Occupational Therapy
School of Therapeutic Sciences • Faculty of Health Sciences • 7 York Road, Parktown 2192, South Africa
Tel: +27 11 717-3701 • Fax: +27 11 717-3709 • E-mail: denise.franzsen@wits.ac.za

Ms E Burger
Assistant Director: Support Services
Gauteng Health Department.

Dear Elma,

Assistance with Occupational Therapists employed in your department participating in a research project.

As you are aware I am undertaking a doctoral study entitled:
"*Clinical education of B Sc OT students by clinical occupational therapists: a mixed methods study."*

The study, which has been approved by the Faculty of Health Science Post Graduate Committee and the University Human Research Ethics Committee (Health) and the Gauteng Health's Research unit.

The following steps of the research have already been completed:
To determine stake holders perceptions of clinical education on the Wits teaching platform
To determine how clinical occupational therapists are currently trained and supported in the supervision of occupational therapy students and whether this training is sufficient and helpful.
To determine the 'skill set' of a clinical supervisor based on than extensive literature review.

The aspect of the research that i am currently working on is:
To determine if a gap supervision skills exists in current OT supervisors and whether additional training is needed.

I am requesting your permission to allow all occupational therapists that are supervising or may supervise the final year occupational therapy students in the next year in the Provincial Health training sites to participate in this stage of this study.

All staff will be invited to complete a questionnaire which should take only 30 minutes of their time.

Thank you for your help and support.
Regards
P.A.de Witt

Occupational Therapy

School of Therapeutic Sciences • Faculty of Health Sciences • 7 York Road, Parktown 2192, South Africa
Tel: +27 11 717-3701 • Fax: +27 11 717-3709 • E-mail: denise.franzsen@wits.ac.za

Ms N. Dube
DCES-Inclusion and Special Schools
Gauteng Education Department: Head Office.
111, Commissioner Street,
Johannesburg.
2001

Dear Nonhle,

Assistance with Occupational Therapists employed in your department participating in a research project

As you are aware I am undertaking a doctoral study entitled:
"*Clinical education of B Sc OT students by clinical occupational therapists: a mixed methods study."*

The study has been approved by the Faculty of Health Science Post Graduate Committee and the University Human Research Ethics Committee (Health) as well as the Gauteng Department of Education.

The following steps of the research have already been completed:
To determine stake holders perceptions of clinical education on the Wits teaching platform
To determine how clinical occupational therapists are currently trained and supported in the supervision of occupational therapy students and whether this training is sufficient and helpful.
To determine the 'skill set' of a clinical supervisor based on than extensive literature review.

The aspect of the research that i am currently working on is:
To determine if a gap supervision skills exists in current OT supervisors and whether additional training is needed.

I am requesting your permission to allow all occupational therapists that are supervising or may supervise the final year occupational therapy students in the next year in the Provincial Health training sites to participate in this stage of this study.

All staff will be invited to complete a questionnaire which should take only 30 minutes of their time.

Thank you for your help and support.
Regards
Pat de Witt

F:2 LETTERS TO OCCUPATIONAL THERAPY DEPARTMENT HEADS

Head
Dept of Occupational Therapy

Dear Colleague,

As you are probably aware I undertaking a research project entitled:
'*Clinical education of B Sc OT students by clinical occupational therapists: a Mixed methods study'.*

The study has been approved by the Faculty of Health Science Post Graduate Committee and the University Human Research Ethics Committee (Health) as well as the Gauteng Department of Education and Health.

Many of you have already taken part in previous aspects of this study.

The following aspects of the research have already been completed:
To determine stake holders perceptions of clinical education on the Wits teaching platform
To determine how clinical occupational therapists are currently trained and supported in the supervision of occupational therapy students and whether this training is sufficient and helpful.
To determine the 'skill set' of a clinical supervisor based on than extensive literature review.
This study is in its final phase. I am inviting you and your staff to take part. If you agree please circulate this questionnaire and the information sheet to your staff. I would be grateful if all completed questionnaires from your hospital/clinic/school/practice can be returned to Leilane by the 31st July so that I can analyze the data by the end of September.

If you would prefer an electronic copy please send me an email (patricia.dewitt@wits.ac.za) and I will send the information.

I appreciate your help and co-operation.
Regards

Pat de Witt

F:3 INFORMATION SHEET FOR PARTICIPANTS

Hi,

My name is Pat de Witt and I am a registered PhD student at the University of the Witwatersrand.

I am undertaking a study entitled:
"*Clinical education of B Sc OT students by clinical occupational therapists: a mixed method study"*

The study has been approved by the Faculty of Health Sciences Post Graduate Committee and the University Human Ethics Research Committee (Medical) as well as the Gauteng departments of Health and Education. The study has taken place in two parts.

Part 1 included:
A qualitative study to understand stakeholders perception of clinical education
To determine how clinical occupational therapists are currently trained and supported in the supervision of occupational therapy students and whether this training is sufficient and helpful.
To determine the 'skill set' of a clinical supervisor based on the international literature.
To determine if a gap in supervision skills exists among OT supervisors and whether additional training is needed and then to develop a clinical skills training programme and evaluate its effectiveness.

I am inviting you to participate in the final step of this study.

The data that I collected in the first step of the study suggested that undergraduate training and the support that is offered by the university is not sufficient to assist clinical staff in the day to day tasks involved in the clinical education of final year students.

The second step of this study involved an extensive literature review and the development of a skill set appropriate for occupational therapy educators based on this literature review.

This final stage of the study will explore the extent to which occupational therapists responsible for the clinical education of the final year students on Wits clinical teaching platform have the knowledge, skills and attitudes consistent with the skill set developed in Part 2 so as to determine if there is a need for a more formal training of clinical educators, like there is in other countries of the world.

If you agree to participate, you would be required to complete a questionnaire which will take about half an hour of your time. The questionnaire has been based on the developed skill set and will ask you to rate your knowledge, skills and attitude in relation to the day to day activities involved in the clinical education of final year students.

Finally, there are some questions related to your personal opinion on whether training on clinical education would be helpful and how this training could be structured and presented so that it could be easily accessed and fit into your busy schedule.

Your participation is entirely voluntary and you can withdraw at any time without consequence. If you agree to participate please return the questionnaire to our departmental secretary who will remove all identifying information before giving it to me. Her email address is Leilane.mackay@wits.ac.za and the fax number is 011 717 3709.

Your identity and all information that you contribute to the study will remain confidential. Feedback will be available on request.

Should you have any queries you may contact me on 082 854 1470 or you can email me at patricia.dewitt@wits.ac.za. You can also contact either of my two supervisors Prof. Alan Rothberg or Prof Judy Bruce on 011 717 -2063. If you have any other queries or complaints about the research you may contact the secretary of the Human Research ethics committee Anisa Keshav on 011 717-1234.

Regards,

Pat de Witt

F:4 OT-CE SKILL-SET QUESTIONNAIRE

To be completed by:

All OTs concerned with the clinical education of OT students.

Occupational therapists who are likely to be involved in the clinical education of students in the next two years.

SUBJECT NO: ☐

Instructions:

Make a cross in the appropriate block

In some sections more than one item may apply. Cross all items that apply to you.

This survey is completely anonymous. Please answer as truthfully as possible.

SECTION 1: DEMOGRAPHIC INFORMATION

1.1 Age:

20-30 ☐ 30-40 ☐ 40-50 ☐ 50-65 ☐

1.2 Undergraduate degree obtained from:

University of Witwatersrand ☐

University of Pretoria ☐

University of Cape Town ☐

University of Free State ☐

University of Limpopo (MEDUNSA) ☐

University of Stellenbosch ☐

University of Western Cape ☐

University of KwaZulu-Natal ☐

1.3 Post graduate qualifications Yes☐ No☐

1.4 Years of work experience:

Less than 6 months ☐

Less than l year ☐

1-3 years ☐

4-5 years ☐

5-10 years ☐

10+ years ☐

20+ years ☐

1.5 Field of practice:

Physical ☐
Mental Health ☐
Paediatric ☐
Public Health ☐
Other: _____

1.6 Sector:

Public Sector: Health ☐
Public Sector: Education ☐
Private Practice ☐
NPO / NGO ☐
University ☐
Other: _____

1.7 Position:

Community Service Therapist ☐
Production Therapist Grade I (1-10) ☐
Production Therapist Grade II (11-20) ☐
Production Therapist Grade III (21+) ☐
Chief Therapist Grade 1(1-10) ☐
Chief Therapist Grade 2(11+) ☐
Chief Supervisory Therapist Grade 1(1-10) ☐
Chief Supervisory Therapist Grade 2(11+) ☐
Assistant Director Grade 1 (1-10) ☐
Assistant Director Grade 2 (11-20) ☐
Tutor ☐
Lecturer ☐
Other: _____

1.8 Number of students that you have supervised in

2012 ☐☐ 2013 ☐☐

1.9 Indicate the term that best describes you, based on your experience of clinical education

Novice ☐
Advanced beginner ☐

Competent ☐

Proficient ☐

Expert[308] ☐

1.10 Any CPD activities that you have done in 2012 and 2013 that has contributed to your knowledge and skill as a clinical educator:

Attended one or more clinicians meetings ☐

Read literature pertaining to clinical education ☐

Attended a journal club focused on clinical education ☐

Attended a course that related to clinical education ☐

Attended an OT related course /workshop that contributed to the clinical education of students ☐

SECTION 2: OCCUPATIONAL THERAPY CLINICAL EDUCATOR 'SKILLS SET'

This section is divided into 3 parts: knowledge, skill and attitude /clinical educator behaviours essential to clinical education that together describe the competencies that have been delineated in the clinical educator 'skill set' that has been developed from the literature.

Mark each item as it best applies to you:

KNOWLEDGE

Rate your knowledge of:

	No knowledge	**Little knowledge**	**Some Knowledge**	**Excellent knowledge**
HPCSA Minimum standards of training of occupational therapy students	O	O	O	O
Curriculum of the BSc OT (Witwatersrand course)				
Theoretical curriculum	O	O	O	O
Clinical curriculum	O	O	O	O
Exit level outcomes for the Wits BSc OT course	O	O	O	O
Wits Educational philosophy that supports the curriculum	O	O	O	O
Wits Educational approach, strategy, models and theories used	O	O	O	O
Principles of Problem Based Learning (PBL)	O	O	O	O

Rate your knowledge of:

	No knowledge	Little knowledge	Some Knowledge	Excellent knowledge
How to teach using PBL in the clinical setting	O	O	O	O
How students learn	O	O	O	O
Different learning styles	O	O	O	O
How to accommodate different learning styles in clinical education	O	O	O	O
Responsibilities of the following within clinical education:				
Students	O	O	O	O
University educators	O	O	O	O
Clinical educators	O	O	O	O
Relief clinical educators	O	O	O	O
Placement managers	O	O	O	O
Contribution of clients to the clinical education process	O	O	O	O
Responsibilities attached to the roles of the clinical educator:				
Manager	O	O	O	O
Administrator	O	O	O	O
Role model	O	O	O	O
Teacher	O	O	O	O
Consultant	O	O	O	O
Evaluator	O	O	O	O
Models of clinical education	O	O	O	O
Models of professional development of students	O	O	O	O
Clinical education process	O	O	O	O
Development of a professional identity in students	O	O	O	O
Development of clinical reasoning in students	O	O	O	O
Clinical education contracts with students	O	O	O	O
Clinical education relationship with students	O	O	O	O
Power factors in the clinical education relationship	O	O	O	O
Formative and summative evaluations	O	O	O	O
Giving students constructive feedback to facilitate learning	O	O	O	O
Completing the student evaluation form	O	O	O	O
Educational purpose of:				
Case reports	O	O	O	O
Case presentations	O	O	O	O

Rate your knowledge of:

	No knowledge	Little knowledge	Some Knowledge	Excellent knowledge
Treatment demonstrations	O	O	O	O
Block of Clinical education	O	O	O	O
Facilitation styles to encourage and motivate students	O	O	O	O
Factors which influence the nature and quality of clinical education	O	O	O	O
Factors/behaviours that identify the:				
At risk student	O	O	O	O
Failing student	O	O	O	O
Excellent student	O	O	O	O
Factors/behaviours that identify students with different:				
Levels of knowledge	O	O	O	O
Levels of motivation	O	O	O	O
Levels of ability	O	O	O	O
Factors/behaviours that identify students that have:				
Learning Disability	O	O	O	O
Illness which comprises learning	O	O	O	O
Personal crises which comprises learning	O	O	O	O
Poor coping skills	O	O	O	O
Difficult / challenging behaviour	O	O	O	O
How to be a good role model	O	O	O	O
Principles of managing workload	O	O	O	O
How to assist students to translate their theory into practice	O	O	O	O
Burnout /Compassion fatigue	O	O	O	O
Ethical and legal aspects of clinical education	O	O	O	O

SKILL

Rate how skilled you are at

	No skill	Little skill	Some skill	Excellent skill

Rate how skilled you are at

	No skill	Little skill	Some skill	Excellent skill
Using PBL in the clinical setting	O	O	O	O
Facilitating students learning	O	O	O	O
Assessing and accommodating to student's learning styles	O	O	O	O
Accommodate different learning styles when teaching	O	O	O	O
Identifying clients for student and gaining their consent	O	O	O	O
Identifying educational opportunities and activities for students learning	O	O	O	O
Collaborating with university educators	O	O	O	O
Learning from, giving and gaining support from other clinical educators	O	O	O	O
Briefing relief clinical educators	O	O	O	O
Collaborating with placement senior /OT mangers to promote clinical education	O	O	O	O
Executing the roles of the clinical educator:				
Managing the student learning process	O	O	O	O
Administration of clinical education	O	O	O	O
Role modelling professional behaviours and skills	O	O	O	O
Teaching and promoting self directed learning in students	O	O	O	O
Consulting with respect to clinical education	O	O	O	O
Evaluator	O	O	O	O
Using the models of clinical education	O	O	O	O
Identifying and facilitating the different stages of professional development of students in clinical education	O	O	O	O
Facilitating the clinical education process	O	O	O	O
Facilitating the development of a professional identity in students	O	O	O	O
Developing clinical reasoning in students	O	O	O	O
Developing and implementing clinical education contracts	O	O	O	O
Developing and maintaining a clinical education relationship	O	O	O	O
Managing the power factors in the clinical education relationship	O	O	O	O
Observing students for formative and summative evaluations	O	O	O	O
Giving students constructive feedback to facilitate learning	O	O	O	O
Completing the student evaluation form to facilitate positive learning experiences	O	O	O	O
Evaluating and allocating marks to:				
Case reports	O	O	O	O
Case presentations	O	O	O	O
Treatment demonstrations	O	O	O	O
Block of Clinical education	O	O	O	O

Rate how skilled you are at

	No skill	Little skill	Some skill	Excellent skill
Using different facilitation styles to encourage and motivate students	O	O	O	O
Identifying and managing factors which influence the nature and quality of clinical education	O	O	O	O
Coping with the:				
At risk student	O	O	O	O
Failing student	O	O	O	O
Excellent student	O	O	O	O
Coping with students with different:				
Levels of knowledge	O	O	O	O
Levels of motivation	O	O	O	O
Levels of ability	O	O	O	O
Coping with students that have:				
Disability	O	O	O	O
Illness	O	O	O	O
Personal crises	O	O	O	O
Poor coping skills	O	O	O	O
Difficult/ challenging behaviour	O	O	O	O
Managing your own workload and clinical education	O	O	O	O
Preventing burnout	O	O	O	O
Dealing with ethical and legal issues	O	O	O	O

ATTITUDE/ CLINICAL EDUCATOR BEHAVIOURS

The literature review reports that clinical educators bring a set of personal attributes, characteristics and values to the clinical education process that are based in the individuals personal –professional value system as well as their past experience. These factors often influence the decision to become a clinical educator as well as how the clinical educator manages the clinical education process and the different people involved.

Motivation for being involved in clinical education:	Y	N
You want to teach students so they have good clinical skills	☐	☐
It is your professional responsibility	☐	☐
Distrust the education system and want to make sure future OT have right skills	☐	☐
You work in an academic hospital and it is therefore part of your job	☐	☐
It is an expectation but you don't really want to do it	☐	☐

To keep up to date ☐ ☐

To identify and recruit future staff ☐ ☐

Any other:

_____

_____

_____

_____

_____

Describe any personal attributes and characteristics **that you have** which you have found useful to facilitate the clinical education process:

_____

_____

_____

_____

_____

Describe any personal attributes and characteristics **that you have** which you have found that hinder/challenge the clinical education process:

_____

_____

_____

_____

_____

Describe any **student** attributes and characteristics that you have which you have found useful to facilitate the clinical education process:

_____

_____

_____

_____

_____

Describe any **student** attributes and characteristics that you have which you have found that hinder/challenge the clinical education process:

_____

_____

Describe your personal professional aspirations/ the professional development that you would like to achieve and the steps you have taken/plan to take to achieve these.

SECTION C

If the university were to offer a clinical educators course how should be organised so that it would be easily accessible:

Should the course:

[Tick those items that you agree with and cross those that you disagree with.]

Be a formal registered short course ☐

Be Informal ☐

Be compulsory for all clinical educators ☐

Include CPD points ☐

Be face to face with some on-line components ☐

Be all on-line and internet based ☐

Have more than one level:

Level of novice clinical educators ☐

Advanced level for more experienced clinical educators ☐

Do you have any other suggestions?

_____

_____

_____

_____

_____

Should there be a forum for discussion of clinical education? ☐

Should Clinical OT be given the opportunity to influence the OT curriculum? ☐

If your answer is yes how do you think this should happen?

_____

_____

_____

_____

_____

Thank you for completing this questionnaire.

Please send completed questionnaires to the departmental secretary via:

E-mail: leilane.mackay@wits.ac.za or

Fax: (011) 717-3709.

"*Clinical education of B Sc OT students by clinical occupational therapists: a mixed methods study*."

The study has been approved by the Faculty of Health Sciences Post Graduate Committee and the University Human Research Ethics Committee (Medical), and the Gauteng Department of Health and Education. The study has been conducted in two parts phases:

Part 1 has included:
a qualitative study to understand the complexities and challenges of clinical education,
a qualitative study to understand what information and support OT clinical educators (CEs) use to guide the clinical education process

Based on the findings of Part 1, Part 2 of the study has been implemented. Thus far this has included:
a literature review to develop a CE Skills set and
a qualitative study to establish if there is a gap between the skill-set and what CE perceive they know about clinical education.

The results indicated that there is a gap in the knowledge and skills that OT clinical educators have to support the teaching and learning functions associated with this role. Results also showed that there is a significant difference between the knowledge and skill related to clinical education between experienced and inexperienced OT-CEs.

I am inviting you to participate in the first cycle of final step of the study. This step will use a practical action research methodology which aims to:
Develop a OT clinical educator training programme.

If, you agree to participate, this would involve your participate in a four hour workshop with about 6 occupational therapists with educational and clinical education expertise. You may also be required to comment documents in the subsequent cycles.

Your participation is entirely voluntary and you can withdraw at any time without consequence.

Feedback will be available on request.

Should you have any queries you may contact me on 082 854 1470 or you can email me at patricia.dewitt@wits.ac.za. You can also contact either of my two supervisors: Prof. Alan Rothberg or Prof Judy Bruce on 011 717 -2063. If you have any other queries or complaints about the research you may contact the chairperson of the Human Research Ethics Committee (Medical) Prof Cleaton-Jones on 011 717-1234.

Kind Regards,
Pat de Witt

APPENDIX G

STUDY 7

G:1 EDUCATIONAL EXPERTS INFORMATION SHEET

Dear Colleague,

My name is Pat de Witt and I am a registered PhD student at the University of the Witwatersrand.
I am undertaking a study entitled:
"Clinical education of B Sc OT students by clinical occupational therapists: a mixed methods study."

The study has been approved by the Faculty of Health Sciences Post Graduate Committee and the University Human Research Ethics Committee (Medical), and the Gauteng Department of Health and Education. The study has been conducted in two parts:
a qualitative study to understand the complexities and challenges of clinical education.

Part 1 included:
a qualitative study to understand perceptions of clinical education on the our teaching platform from the perspective of all stakeholders.
quantitative study to examine what information and support OT clinical educators (CEs) use to guide the clinical education process.

On the basis of the results in Part 1 the need for an OT-CE training programme was established and Part 2 was commenced.

Part 2 has included:
a literature review to develop a CE Skills set and a
quantitative study to establish if there is a gap between the skill set and what CE perceive they know about clinical education.

Results showed that there is a significant difference between the knowledge and skill related to clinical education between experienced and inexperienced OT-CEs.

I am inviting you to participate in the first cycle of the practical action research process being used to develop the training programme as an educational expert. The purpose of this first cycle is to:
To develop a macro-curriculum for the proposed OT clinical educator training programme.

If, you agree to participate, this would involve your participate in a four hour workshop with about 5 other education experts to use curriculum mapping to develop the macro-curriculum. Your participation is entirely voluntary and you can withdraw at any time without consequence.

Feedback will be available on request.

Should you have any queries you may contact me on 082 854 1470 or you can email me at patricia.dewitt@wits.ac.za. You can also contact either of my two supervisors Prof. Alan Rothberg or Prof Judy Bruce on 011 717 -2063. If you have any other queries or complaints about the research you may contact the chairperson of the Human Research Ethics Committee (Medical) Prof Peter Cleaton-Jones on 011 717-1234.

Regards,

Pat de Witt

G:2 EDUCATIONAL EXPERTS' CONSENT FORM

Consent form for Participation in Cycle 1 of the development of an OT-CE training Programme

I _____ agree to take part in the study entitled:
"*Clinical education of B Sc OT students by clinical occupational therapists: a mixed methods study."*

The person who has recruited me has explained the research and what will be required of me and the time frame that participation in the research will take.

I am aware that my participation is entirely voluntary and that I may withdraw at any time and without consequence.

I am aware of who I may contact should I have any questions or concerns.
I am aware that I may request feedback from the researcher.

Signed:_____

Date:_____

G:3: LETTERS TO DEPARTMENTAL HEADS REGARDING OT-CE TRAINING

Dear OT Department Head,

My name is Pat de Witt and I am a registered PhD student at the University of the Witwatersrand.

I am undertaking a study entitled:

"*Clinical education of B Sc OT students by clinical occupational therapists: a mixed methods study*."

The study has been approved by the Faculty of Health Sciences Post Graduate Committee, the University Human Research Ethics Committee (Medical) as well as the Gauteng Department of Health and Education.

This is a mixed methods study which has been designed in two parts.

Part 1 included:
a qualitative study to understand the complexities and challenges of clinical education,
a quantitative study to understand what information and support OT clinical educators (CEs) use to guide the clinical education process.
Based on the findings of Part 1 part 2 was designed.

Part 2 has included:
a literature review to develop a OT-CE skill-set and
a quantitive study to establish if there is a gap between the skill-set and what CE perceive they know about CE. The main finding is that there is a gap between the OT-CE skill-set and what clinical educators perceive they know about the different aspects of clinical education. The gap differs significantly between OT-CE who are experienced and those who are inexperienced

I am inviting you to allow your occupational therapy staff who are inexperienced in clinical education to participate in the piloting of an OT-CE training programme which has been designed to address this gap. Any future students they may supervise may be asked to rate their clinical education knowledge as another method of evaluating the effectiveness of this training.

If you agree to allow them to participate, this would involve their participation in a 2 day workshops. Continuing education units will be given to each participant on completion of the course, well as a certificate of attendance.

Their participation is entirely voluntary and they can withdraw at any time without consequence.

Feedback will be available on request.

Should you have any queries you may contact me on 082 854 1470 or you can email me at patricia.dewitt@wits.ac.za. You can also contact either of my two supervisors Prof. Alan Rothberg or Prof Judy Bruce on 011 717 -2063. If you have any other queries or complaints about the research you may contact the chairperson of the Human Research Ethics Committee (Medical) Prof Cleaton-Jones on 011 717-1234.

Kind Regards,

Pat de Witt (Adj. Prof)

G:4 PILOT STUDY INFORMATION SHEET

Dear Participant,

My name is Pat de Witt and I am a registered PhD student at the University of the Witwatersrand.

I am undertaking a study entitled:
"*Clinical education of B Sc OT students by clinical occupational therapists: a mixed methods study."*

The study has been approved by the Faculty of Health Sciences Post Graduate Committee and the University Human Research Ethics Committee (Medical), and the Gauteng Department of Health and Education. The study has been conducted in two parts.

Part 1 included:
a qualitative study to understand the complexities and challenges of clinical education,
a quantitative study to understand what information and support OT clinical educators (CEs) use to guide the clinical education process.
Based on the results of Part1, the decision was taken to undertake Part 2. Part 2 has included:
a literature review to develop a CE Skills set and
a qualitative study to establish if there is a gap between the skill set and what CE perceive they know about CE.

Cycles 1, 2 of the practical action research process have been completed and the final phase is in progress.

I am inviting you to participate in the Cycle 3 of the study which aims to:
To pilot and evaluate an OT clinical educator training programme that has been developed for inexperienced OT-CEs.

If, you agree to participate, this would involve your participate in a workshop with about 9 other inexperienced OT-CEs. You will be required to complete a before and after questionnaire as well as a course evaluation. The questionnaires you complete will be confidential and the researcher will not be able to identify your responses.

Any students you supervise may be asked to rate your clinical education knowledge and skill to determine the effectiveness of the programme.

Your participation is entirely voluntary and you can withdraw at any time without consequence.

Feedback will be available on request.

Should you have any queries you may contact me on 082 854 1470 or you can email me at patricia.dewitt@wits.ac.za. You can also contact either of my two supervisors Prof. Alan

Rothberg or Prof Judy Bruce on 011 717 -2063. If you have any other queries or complaints about the research you may contact the chairperson of the Human Research Ethics Committee (Medical) Prof Peter Cleaton-Jones on 011 717-1234.

Regards,

Pat de Witt (Adj. Prof)

G:5 TRAINING PARTICIPANTS' CONSENT FORM

Consent Form

I _____ agree to take part in the piloting of the OT CE Training programme designed as part of phase 3 of the PhD study entitled:

"**Clinical education of B Sc OT students by clinical occupational therapists: a mixed methods study**."

The person who has recruited me has explained the research and what will be required of me and the time frame that participation in the research will take.

I am aware that my participation is entirely voluntary and that I may withdraw at any time and without consequence.

I am aware of who I may contact should I have any questions or concerns.

I am aware that I may request feedback from the researcher.

Signed : _____

Date : _____

G:6 PRE-TRAINING QUESTIONNAIRE

SUBJECT NO:☐☐

Instructions:

Make a cross in the appropriate block

In some sections more than one item may apply. Cross all items that apply to you.

This survey is completely anonymous. Please answer as truthfully as possible.

SECTION 1 DEMOGRAPHIC INFORMATION

Age:

20-29 ☐ 30-39 ☐

Undergraduate degree obtained from:

University of Witwatersrand ☐

University of Pretoria ☐

University of Cape Town ☐

University of Free State ☐

University of Limpopo (MEDUNSA) ☐

University of Stellenbosch ☐

University of Western Cape ☐

University of KwaZulu-Natal ☐

Post graduate OT qualifications

Yes ☐

No ☐

Years of work experience:

Less than 6 months ☐

Less than l year ☐

1 year ☐

≥2 years ☐

Current Field of practice:

Physical ☐

Mental Health ☐

Paediatric ☐

Current Place of work:

Academic hospital ☐

Secondary/district hospital ☐

Primary care: CHC/clinic ☐

Current Position:

Community Service Therapist ☐

Production Therapist Grade I (1-10) ☐

Total number of students that you have supervised in 2014 ☐☐

Level of the students you have supervised:

4th years ☐

3rd years ☐

2nd years ☐

1st years ☐

Any CPD activities that you have done in 2014 that have contributed to your knowledge and skill as a clinical educator:

Attended one or more clinicians meetings (on-or off-site) ☐

Read literature pertaining to clinical education ☐

Attended a journal club focused on clinical education (on-or off-site) ☐

Attended a course related to clinical education ☐

Attended an OT related course /workshop/conference that contributed to the clinical education of students ☐

Mark each item as it best applies to you:

KNOWLEDGE

Rate your knowledge of:					
	No Knowledge	**Little Knowledge**	**Some Knowledge**	**Good Knowledge**	**Excellent Knowledge**
HPCSA Minimum standards of training of occupational therapy students					
Exit level outcomes for the Wits BSc OT course					
Wits Educational philosophy that supports the curriculum					
Principles of Problem Based Learning (PBL)					
How to teach using PBL in the clinical setting					
How students learn					
Different learning styles					
How to accommodate different learning styles in clinical education					
Responsibilities of the following within clinical education:					
Students					
University educators					
Clinical educators					
Relief clinical educators					
Placement managers					
Responsibilities attached to the roles of the clinical educator:					
Manager					
Administrator					
Role model					
Teacher					
Evaluator					
Models of clinical education					
Models of professional development of students					
Clinical education process					
Development of a professional identity in students					
Development of clinical reasoning in students					
Clinical education contracts with students					
Clinical education relationship with students					

Power factors in the clinical education relationship					
Formative and summative evaluations					
Giving students constructive feedback to facilitate learning					
Facilitation styles to encourage and motivate students					
Factors which influence the nature and quality of clinical education					
Factors/behaviours that identify the:					
At risk student					
Failing student					
Factors/behaviours that identify students with different:					
Levels of knowledge					
Levels of motivation					
Levels of ability					
Factors/behaviours that identify students that have:					
Learning Disability					
Illness which comprises learning					
Personal crises which comprises learning					
Poor coping skills					
Difficult / challenging behaviour					
How to be a good role model					
How to assist students to translate their theory into practice					
Ethical and legal aspects of clinical education					

SKILL

Rate how skilled you are at					
	No skill	**Little skill**	**Some skill**	**Good Skill**	**Excellent skill**
Using PBL in the clinical setting					
Facilitating students learning					
Assessing and accommodating to student's learning styles					
Accommodate different learning styles when teaching					
Identifying clients for student and gaining their consent					
Identifying educational opportunities and activities for students learning					
Collaborating with university educators					
Learning from, giving and gaining support from other clinical educators					
Briefing relief clinical educators					
Collaborating with placement senior /OT mangers to promote clinical education					
Executing the roles of the clinical educator:					
Managing the student learning process					
Administration of clinical education					
Role modelling professional behaviours and skills					
Teaching and promoting self-directed learning in students					
Consulting with respect to clinical education					
Evaluator					
Using the models of clinical education					
Identifying and facilitating the different stages of professional development of students in clinical education					
Facilitating the clinical education process					
Facilitating the development of a professional identity in students					
Developing clinical reasoning in students					
Developing and implementing clinical education contracts					
Developing and maintaining a clinical education relationship					
Managing the power factors in the clinical education relationship					
Observing students for formative and summative evaluations					
Giving students constructive feedback to facilitate learning					
Completing the student evaluation form to facilitate positive learning experiences					
Evaluating and allocating marks to:					

Case reports					
Case presentations					
Treatment demonstrations					
Block of Clinical education					
Using different facilitation styles to encourage and motivate students					
Identifying and managing factors which influence the nature and quality of clinical education					
Coping with the:					
At risk student					
Failing student					
Excellent student					
Coping with students with different:					
Levels of knowledge					
Levels of motivation					
Levels of ability					
Coping with students that have:					
Disability					
Illness					
Personal crises					
Poor coping skills					
Difficult/ challenging behaviour					
Managing your own workload and clinical education					
Preventing burnout					
Dealing with ethical and legal issues					

ATTITUDE/CLINICAL EDUCATOR BEHAVIOURS

The literature reports that clinical educators bring a set of personal attributes, characteristics and values to the clinical education process that are based on the individual's personal–professional value system as well as on past experience. These factors often influence the decision to become a clinical educator as well as how the clinical educator manages the clinical education process and the different people involved.

Comment on your motivation for being involved in clinical education:	Y	N
You really like to teach students	☐	☐
You want to teach students so they have good clinical skills	☐	☐
It is your professional responsibility	☐	☐
You work in an academic hospital and it is therefore part of your job	☐	☐
It is an expectation but a responsibility you don't really want t	☐	☐
To keep up to date	☐	☐
To identify and recruit future staff	☐	☐

Any other:

_____

_____

_____

_____

_____

Thank you for completing this questionnaire.

Please replace it in the envelope that has been given to you

G:7 POST-TRAINING QUESTIONNAIRE

SUBJECT NO:☐☐

Instructions:

Make a cross in the appropriate block

In some sections more than one item may apply. Cross all items that apply to you.

This survey is completely anonymous. Please answer as truthfully as possible.

SECTION 1

Please indicate which sessions of the Clinical Educator's course for inexperienced CEs you attended:

Session 1	Clinical education in the Wits curriculum.	☐
Session 2	How students learn.	☐
Session 3	How to teach in a clinical context.	☐
Session 4	How to facilitate professional identity and professional values	☐
Session 5	How to evaluate students	☐
Session 6	Problem students	☐

Since you have completed the CE training course for inexperienced CEs:

KNOWLEDGE

Rate your knowledge of:					
	No Knowledge	**Little Knowledge**	**Some Knowledge**	**Good Knowledge**	**Excellent Knowledge**
HPCSA Minimum standards of training of occupational therapy students					
Exit level outcomes for the Wits BSc OT course					
Wits Educational philosophy that supports the curriculum					
Principles of Problem Based Learning (PBL)					
How to teach using PBL in the clinical setting					
How students learn					
Different learning styles					
How to accommodate different learning styles in clinical education					
Responsibilities of the following within clinical education:					
Students					
University educators					
Clinical educators					
Relief clinical educators					
Placement managers					
Responsibilities attached to the roles of the clinical educator:					
Manager					
Administrator					
Role model					
Teacher					
Evaluator					
Models of clinical education					
Models of professional development of students					
Clinical education process					
Development of a professional identity in students					
Development of clinical reasoning in students					

Clinical education contracts with students					
Clinical education relationship with students					
Power factors in the clinical education relationship					
Formative and summative evaluations					
Giving students constructive feedback to facilitate learning					
Facilitation styles to encourage and motivate students					
Factors which influence the nature and quality of clinical education					
Factors/behaviours that identify the:					
At risk student					
Failing student					
Factors/behaviours that identify students with different:					
Levels of knowledge					
Levels of motivation					
Levels of ability					
Factors/behaviours that identify students that have:					
Learning Disability					
Illness which comprises learning					
Personal crises which comprises learning					
Poor coping skills					
Difficult / challenging behaviour					
How to be a good role model					
How to assist students to translate their theory into practice					
Ethical and legal aspects of clinical education					

SKILL

With the information that you attained in the CE training course for inexperienced CEs rate how skilled you are at					
	Use immediately independently	**Use independently with some practice**	**Use with practice and feedback**	**Need more information, practice and feedback**	**Will not be able to do**
Using PBL in the clinical setting					
Facilitating students learning					
Assessing and accommodating to student's learning styles					
Accommodate different learning styles when teaching					
Identifying clients for student and gaining their consent					
Identifying educational opportunities and activities for students learning					
Collaborating with university educators					
Briefing relief clinical educators					
Collaborating with placement senior /OT mangers to promote clinical education					
Executing the roles of the clinical educator:					
Managing the student learning process					
Administration of clinical education					
Role modelling professional behaviours and skills					
Teaching and promoting self-directed learning in students					
Consulting with respect to clinical education					
Evaluator					
Using the models of clinical education					
Identifying and facilitating the different stages of professional development of students in clinical education					
Facilitating the clinical education process					
Facilitating the development of a professional identity in students					
Developing clinical reasoning in students					
Developing and implementing clinical education contracts					
Developing and maintaining a clinical education relationship					

Managing the power factors in the clinical education relationship					
Observing students for formative and summative evaluations					
Giving students constructive feedback to facilitate learning					
Completing the student evaluation form to facilitate positive learning experiences					
Evaluating and allocating marks to:					
Case reports					
Case presentations					
Treatment demonstrations					
Block of Clinical education					
Using different facilitation styles to encourage and motivate students					
Identifying and managing factors which influence the nature and quality of clinical education					
Coping with the:					
At risk student					
Failing student					
Excellent student					
Coping with students with different:					
Levels of knowledge					
Levels of motivation					
Levels of ability					
Coping with students that have:					
Disability					
Illness					
Personal crises					
Poor coping skills					
Difficult/ challenging behaviour					
Managing your own workload and clinical education					
Preventing burnout					
Dealing with ethical and legal issues					

Thank you for completing this questionnaire.

Please replace it in the envelope that has been given to you

G:8 OT-CE TRAINING PROGRAMME EVALUATION

Code☐☐☐

EVALUATION OF CLINICAL EDUCATORS TRAINING PROGRAMME

The purpose of this questionnaire is collect feedback that can help us refine the course.

Please tick the box that is most consistent with your view.

	Very Useful	Useful	Not useful	Too much	Just enough	Too little
Producing clinically competent graduates						
Introduction to the Wits course						
Clinical education partnerships						
Models of Clinical education						
Legal/ ethical consideration						
How students learn						
Learning as a concept						
PBL						
Learning of knowledge						
Learning of Skill						
Learning professional values						
CE-OTS relationship						
Clinical context that supports learning						
Helping students learn						
Facilitating Clinical reasoning						
Facilitating professional identity						
Facilitating professional values						
Learning contracts						
Setting up						
Value/challenges						
How to evaluate students						
Terminology						
Types of Evaluations						
Guidelines for Ax and evaluation						
How to give feedback						

Value of feedback to learning						
Types						
Guidelines for giving feedback						
Problem students						
Description of Problem students						
Characteristics of failing /at risk students						
How to deal with failing /at risk students						
Ill students						
Students with personal crises/poor coping						
Making CE work for you in your busy day						
Getting prepared						
Selecting patients/clients						
Time for Ax, evaluation , measurement feedback						
Final evaluation and feedback						
Wrap up						
Critical reflection						

Comments_____

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Thank you for your participation and feedback.

G:9 TEACHING MATERIALS FOR OT-CE TRAINING

Refer to CD: OT-CE Training Programme

G:10 STUDENT PARTICIPANTS INFORMATION SHEET

22.06.2015

Dear 4th year Student,

My name is Pat de Witt and I am a registered PhD student at the University of the Witwatersrand. I am undertaking a study entitled:
"*Clinical education of B Sc OT students by clinical occupational therapists: a mixed method study."*

The study has been approved by the Faculty of Health Sciences Post Graduate Committee and the University Human Research Ethics Committee (Medical). The study has a mixed methods design and has been completed in two parts.

I am inviting you to participate in the final step of this study.

A purposively selected number of clinical occupational therapists have over the last four months completed a specially designed clinical educator training programme designed to develop knowledge and skill in clinical education. The purpose of this final stage of the study is to determine whether the training has made a difference to the clinical education that you have received, as final year occupational therapy students.

If you agree to participate you will be required to complete an anonymous questionnaire on your experiences of clinical education in each of the clinical blocks that you have completed this year. It should take you no more than 15 minutes to complete the questionnaires. You are not required to record your name, student number or code of any kind on any of the questionnaires. The name of the clinical educator must be recorded on the form in pencil. As the names of the clinical educators who have completed the training are confidential my research assistant, who has no knowledge of you or your clinical placements, will sort the returned forms into an experimental group of those clinical educators who have attended training and a control group of those that have not. She will erase the clinical educators name before the information is captured and analyzed.

While it is unlikely that you will benefit directly from this research it is hoped that this study will benefit future students, as the department is dedicated to ensuring the quality of all teaching and learning activities during the occupational therapy programme.

The data collected in this study will be used only for the purposes of this study and will be kept in a secure location for 2 years after the research has been completed should the research be published and for 6 years if the work is not, as required by the HPCSA. The information will then be destroyed.

Your participation is entirely voluntary and you can withdraw at any time without consequence. Feedback will be available on request.

Should you have any queries you may contact me on 082 854 1470 or you can email me at patricia.dewitt@wits.ac.za. You can also contact either of my two supervisors Prof. Alan Rothberg or Prof Judy Bruce on 011 717 -2063. If you have any other queries or complaints about the research you may contact the secretariat of the Human Research Ethics Committee (Medical) Prof Cleaton-Jones on 011 717-1234.

Kind Regards,

Pat de Witt (Adj. Prof)
Researcher

G:11 STUDENT CLINICAL EDUCATION EVALUATION FORM

Clinical block:_____

Clinical supervisor:_____

STUDENT EVALUATION OF CLINICAL EDUCATION: POST TRAINING PROGRAMME

The purpose of this questionnaire is collect student feedback on the clinical education that you received at a particular clinical training site. A number of clinical staff have participated a programme of training in clinical education. The Clinical educators (CEs) responsible for your clinical education may or may not have attended the training programme.

Please tick the box that is most consistent with your view of the clinical education you received at the placement

	Yes	Sometimes	No
Your clinical educator			
Understood the Wits course and was clear about what you had been taught in the classroom.			
Understood the requirements of the clinical block.			
Was clear about what you needed to learn clinically.			
Was clear about her role and responsibilities as a CE.			
Was clear about the role of the university educator.			
Took note of the legal/ ethical considerations of clinical education and informed you of any hospital/safety issues that you needed to be aware of.			
Helped you to understand and enact the role and scope of the profession.			
Agreed with what you had been taught in the classroom.			
Helped you extend your OT knowledge and skill through the use of evidence.			
Your clinical educator			
Understood the concept of teaching and learning in the clinical setting.			
Used the principles of PBL to help you learn in the clinical context.			
Helped your learning by revisiting important classroom knowledge.			
Helped you to understand how to use your theoretical knowledge clinically as well as the significance of this knowledge.			

	Yes	Sometimes	No
Helped you to learn to use the skills clinically that you had been taught in class			
Gave you practice opportunities and feedback to help you improve your clinical skills.			
Helped you to learn professional and ethical values			
Was a positive role model.			
Formed a positive CE-OTS relationship with you that promoted your learning.			
Managed the clinical context so that it supported/facilitated learning			
Provided a variety of learning opportunities so you were able to meet the block requirements and outcomes.			
Your clinical educator helped you to learn how to:			
Use clinical reasoning.			
Be reflective about your practice.			
Develop your professional identity.			
Practise professional values/beliefs.			
Did your clinical educator use a Learning contract to:			
Guide the learning that needed to be achieved.			
Accommodate your learning needs.			
Your clinical educator evaluated your work:			
Timeously			
By completing the formal evaluations to assist your learning: Case reports Treatment plans Mid-block evaluation End of block evaluations			
Used the rubrics for Ax and Rx to aid the evaluation.			
In a consistent, fair and realistic manner.			
Feedback: Did your clinical educator			
Understand the importance of feedback to your learning.			
What type of feedback did you receive: Written/verbal feedback on cases Written /verbal feedback on treatment plans. Verbal feedback on practical assessments. Verbal feedback on treatment sessions. Feedback that indicated what had been achieved at mid-term. Feedback that indicated what improvements were needed at mid-block.			

	Yes	Sometimes	No
Achievements at the end of the block			
Give feedback that guided your clinical learning			
If you had a problem during your clinical block:			
Was the problem identified early?			
Did you get the right kind of help/support to resolve the problem?			
Were appropriate accommodations made to help you meet the block outcomes?			
Did you receive any additional tutoring to help achieve the block requirements?			
Your Clinical educator			
Seemed to have prepared for the block before you arrived?			
Orientated you to the department/ working context			
Had selecting patients/clients			
Planned sufficient time for: Observing assessment and treatment Marking written work timeously. Formative evaluation and feedback. For completing all administrative tasks before the end of the block.			
Able to give make appropriate, accurate verbal/written evaluation of your performance that was consistent with the final block mark.			
Wrap up the block with you so that you were clear what had been achieved and what still needed your attention.			
Help you to critical reflect on the learning that took place.			

Comments_____

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Thank you for your participation and feedback

APPENDIX H

TURN-IT-IN REPORT

turnitin **Turnitin Originality Report**

Final draft by Patricia de Witt

From Final Report/Dissertation/Thesis Scan Part 1 (Moodle TT) (2016 Postgraduate Research (Moodle TT))

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