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THE DEVELOPMENT OF AN ASSESSMENT PROTOCOL FOR ACTIVITY PARTICIPATION IN THOSE SUFFERING FROM MENTAL ILLNESS

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Dissertation submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in fulfillment of the requirements for the degree of Master of Science in Occupational Therapy

Johannesburg, 2011

DECLARATION

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SENATE PLAGIARISM POLICY: APPENDIX ONE

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- I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this in not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.

Signature: _____ Date: 2011/11/14

PRESENTATIONS

This study has been presented at:

The Creative Ability colloquium

University of KwaZulu Natal

19th and 20th February 2010

The international Model of Creative Ability conference

Hamilton House, London

21 May 2010

Wits Faculty of Health Sciences research day

University of the Witwatersrand

22 September 2010

POTS Update Symposium

University of the Witwatersrand

9 and 10 June 2011

ABSTRACT

Introduction: A variation in the instruments and assessment methods that occupational therapists utilise create a discrepancy in the evaluation of mental health care users. This impacts on quality of health care, which has recently been a focal point of discussions in South Africa.

Aim: To compile an assessment protocol, comprising of appropriate assessment methods, which can be used to assess activity participation in those suffering from mental illness.

Research methods: An audit of existing performance-based instruments was carried out, and thereafter focus groups with clinicians were conducted. The methods of assessment were collected through review of existing performance-based assessments and by means of discussion groups with occupational therapists in mental health care. Following this the Activity Participation Assessment protocol was compiled. The content validity was then investigated through expert review.

Results: Assessment methods for the domains of the Activity Participation Assessment were determined. Common methods of assessment included interviewing, activities, collateral information and standardised assessments. The content validity indices for all domains of assessment were above the 0.80 recommendation for new instruments.

Conclusion: The Activity Participation Assessment has good content validity and can be used in the clinical setting.

ACKNOWLEDGMENTS

The researcher would like to thank and acknowledge the following contributors to this research study:

Daleen Casteleijn (research supervisor) for the continued guidance and support given throughout this research study.

The Momentum Fund Bursary Programme for granting funding for perusal of this research study in 2010.

To all the occupational therapy clinicians and experts who contributed to this study – your contributions were fundamental in the research process.

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OPERATIONAL TERMS

Assessment: “The process of measuring an individual’s level of functioning in one or more of the following areas: vocational, social, medical, personal or intellectual.” [1: 183]

Baseline assessment: The initial assessment done with an individual before intervention has taken place [2].

Activity: “The execution of a task or action by an individual” [3:14]

Participation: “Involvement in a life situation” [3:14]

Instrument: “Any device used in measuring or recording data” [1:183]

Outcome measure: An outcome measure gauges change in meaningful areas of a person’s life over time, in a way that informs decisions about treatment. [4]

Abilities: The measure of the level of competence with which a task is performed. Abilities are relatively enduring. [1]

Limitations: Difficulties an individual may experience in tasks. [3]

Occupational therapy process: A cycle of thoughts and actions undertaken in order to successfully complete occupational therapy intervention. [5]

Capacity: “The highest probable level of functioning that a person may reach...at a given moment. Capacity is measured in a uniform or standard environment, and thus reflects the environmentally adjusted ability of the individual.” [3:15]

Performance: “What individuals do in their current environment, and so brings in the aspect of a person's involvement in life situations.” [3:15]

Domain: A domain comprises of the practical, meaningful set of related physiological functions, actions, tasks, or areas of life. [3]

Occupational performance: “A specific kind of performing that includes the intention to perform, an outcome of the performance, and an assessment of the performing by the performer.” [6:4]

Activity participation: “The doing and execution of tasks that make up daily life occupations.” [3:10] Activity participation is the essence of doing, and for the purposes of this research this definition was used.

Activity analysis: “Breaking down an activity into sequences of component tasks and identifying the skills required to perform these” [5]

Assessment: “Process by which data is gathered and decisions are made for further action.” [7:16]

Evaluation: “…the process of obtaining and interpreting data necessary for intervention.” [7:82]

Measure: To judge the attributes of a certain aspect. [8]

Assessment method: An informal or formal technique to measure an individual’s level of functioning in various life areas. [1, 8, 9]

NOMENCLATURE

CINAHL	Cumulative index to nursing and allied health literature
CVI	Content validity index
CVIs	Content validity indices
EBSCO	Elton B Stephens Company
ERIC	Educational Resources Information Center
ICF	International classification of functioning
ILS	Independent living scales
MEDLINE	Medical Literature Analysis and Retrieval System Online
MHCU	Mental health care user
MHCUs	Mental health care users
PsycINFO	Psychological information database
PubMed	Publication database of biomedical and life science literature
UCSD	University of California, San Diego
UPSA	UCSD performance-based skills assessment

1. INTRODUCTION

"Working as an occupational therapist in a psychiatric hospital means that you spend your days engrossed in the chaos of the minds of those suffering from mental illness. In amongst this pandemonium, your thoughts are ever entwined around unraveling the MHCU's underlying ability to contest the world. On some days it is difficult not to wonder if what you see the MHCU doing is a true reflection of their abilities, or more so, if the activities you give your MHCU to do really gauge what it is you yourself are trying to fathom. It was on one of these days that the epitome of this confusion came to light. With so many MHCUs and so many abilities and limitations to explore in a world of chaos, it is vital that there be a tangible protocol that can be used to untangle and systematically depict what the MHCU can and cannot do." (The author's realisation, 2009)

This chapter serves to highlight the statement of the problem leading up to the decision to embark on this research study, the justification of the study, aims and objectives.

1.1 BACKGROUND TO THE STUDY

Quality of service provision has been a focal point in the strategic planning for health in South Africa. The dominant objectives in the policy for the quality of health care in South Africa are to maintain a high quality of health care provision for all citizens; as well as to expand research on evidence for effectiveness, specifically focusing on South African needs [10]. Problems identified that limit the quality of health care provided include: lack of resources, variation in services and inadequate diagnosis and treatment, to mention a few [10]. The problems identified above all lead to reduced productivity within hospital sectors [10].

Occupational therapy services are not exempt from the negative issues surrounding quality of care. In psychiatric occupational therapy services there is currently no standardised protocol or procedure to follow for the assessment, evaluation or measurement of therapeutic interventions. Despite this, it would be expected that therapists are nevertheless following the occupational therapy process, as outlined by Creek [2]. However, this is simply a guide to the flow of the

process for occupational therapy intervention. Therapists are still left to subjective assessment and evaluation.

A lack of resources and variation in the way different therapists carry out the occupational therapy process impacts on service provision. As Occupational therapists, the ‘functional diagnoses’ we give our mental health care users (MHCUs) can be seen as our baseline assessment of the person’s abilities and limitations. Variations between therapists, specifically in the instruments, assessment methods and protocols used to determine these abilities and limitations create discrepancies in homogeneity of assessments of MHCUs.

An example to illustrate how subjectivity may affect a mental health care user (MHCU) is as follows: one therapist may feel that the MHCU is well enough to re-enter the community, whilst another may feel on the contrary. In either of these scenarios, the outcome of the decision of the multidisciplinary team to either allow the MHCU back into the community, or require him to stay in the hospital may be an erroneous decision, which could be detrimental to the MHCU.

This is but one example that is indicative of how the subjectivity of assessment and measurement can influence life changing decisions for MHCUs in the psychiatric setting.

Inconsistency in homogeneity of assessments of MHCUs has compounding effects on outcome measures used to validate treatment. This then influences the evidence base for the provision of occupational therapy services. A recent development by Casteleijn [11], is the Activity Participation Outcome Measure. This outcome measure serves to act as a tool for therapists to measure the change in a MHCU’s activity participation over time. Measurement of the change in activity participation of a MHCU is a gauge of the effectiveness of occupational therapy intervention. Ultimately this evidence serves to support the need for occupational therapy intervention. With the development of this standardised outcome measure, the need for an assessment protocol to accompany this outcome measure came to the forefront.

As the Activity Participation Outcome Measure has already been developed and is being used, the construct is already familiar to various clinicians. It will later be

discussed how the construct of the Activity Participation Outcome Measure was used as a basis for this research study in developing the Activity Participation Assessment.

The Activity Participation Outcome Measure is a measure of activity participation. There appears to be controversy between the terms of *activity participation* and *occupational performance* in the occupational therapy profession. This is discussed at length in the chapter to follow. Nevertheless it was found that 'performance' of a task during assessment is the most reliable form of assessment when evaluating activity participation [12, 13]. The importance of the use of performance-based assessments in the psychiatric setting is detailed in the chapter to follow.

By addressing the issue surrounding the homogeneity of assessment procedures, this will have a positive influence on the outcome and validation of occupational therapy intervention.

1.2 STATEMENT OF THE PROBLEM

There is no standardised assessment protocol available to occupational therapy clinicians for use in the psychiatric setting.

In addition to the above, Casteleijn recently developed the Activity Participation Outcome Measure. After Casteleijn had developed the Activity Participation Outcome Measure, it became apparent that many therapists sought an assessment procedure to be used with this outcome measure. As there were no standardised assessment protocols available to therapists, it was an ideal time to begin this process.

Therefore this research study served to clarify assessment procedures for the occupational therapy clinician and attempted to reduce the variation in assessment processes.

1.3 JUSTIFICATION OF THE STUDY

The occupational therapy process, as adapted from Creek [2], mentions stages including baseline assessment, treatment planning, intervention, ongoing assessment or treatment review and final review (outcome measurement). The

occupational therapy process is shown in Figure 1.1. In order for the occupational therapy process to be carried out proficiently there must be a clear association between assessments and outcome measures. Furthermore, the assessment activities that are used should be easy to carry out as well as valid and reliable [14].



FIGURE 1.1: THE OCCUPATIONAL THERAPY PROCESS AS ADAPTED FROM CREEK

In order for a clear association between assessment and outcome measurement to be created, there needed to be a link between the recently developed Activity Participation Outcome Measure and the assessment process. The assessment protocol that has been developed in this research study is known as the Activity Participation Assessment. The Activity Participation Outcome Measure was used as the measurement tool for rating observations made from the Activity Participation Assessment.

The Activity Participation Outcome Measure has an established scoring system for eight domains of activity participation, which are based on Vona du Toit's Model of Creative Ability [15, 16]. Therefore this study will augment with existing research in order to further enhance the implementation of the occupational therapy process.

1.4 PURPOSE OF THE STUDY

The intention of this research study was to develop a valid assessment protocol comprising of different assessment methods. It was intended that therapists would be able to utilise the protocol that was developed, the Activity Participation Assessment, to efficiently assess the activity participation of MHCUs.

This assessment protocol was developed on the structural design of the recently developed Activity Participation Outcome Measure as described above. The Activity Participation Outcome Measure comprises of eight performance domains.

These eight performance domains were used as the basis of the Activity Participation Assessment.

The Activity Participation Assessment was developed to be used in conjunction with the Activity Participation Outcome Measure or as a standalone assessment protocol.

1.5 AIM OF THE STUDY

The aim of the study was to develop a valid assessment protocol comprising of suitable methods and techniques, which can be used to assess activity participation in those suffering from mental illness.

The eight domains of the Activity Participation Outcome Measure were used to direct the selection of methods in the development of the Activity Participation Assessment.

1.6 OBJECTIVES OF THE STUDY

The objectives of the study were as follows:

- To determine appropriate assessment methods for each of the eight domains of the Activity Participation Assessment
- To compile the protocol which was named the Activity Participation Assessment
- To investigate the content validity of the Activity Participation Assessment

1.7 THE RESEARCH SETTING

It is necessary at this stage to set the context for this research study. The research was conducted in the typical South African in-patient psychiatric unit context. By no means does the researcher claim to have studied the South African population at large, but it is necessary to set the scene for the forthcoming details of the study.

In South Africa there is a private and public health sector. In public hospitals the typical MHCUs are aged 18 - 60 years. They come from a variety of different cultures and ethnic backgrounds. A large portion of the MHCUs are unemployed

or are involved in unskilled labour. In the private sector, MHCUs may make use of psychiatric units within hospital, or psychiatric clinics. These MHCUs are too usually aged 18 – 60 years and also come from a large variety of backgrounds and ethnicity. Most often the MHCUs using the private health services are those which have personal medical insurance.

Both in the public and private sector, popular models that are used by occupational therapists to guide their practice include the Vona du Toit Model of Creative Ability [15, 16], and the Model of Human Occupation as developed by Kielhofner [17].

At this stage it seems that the only used outcome measure for practice in mental health care settings in South Africa is the Activity Participation Outcome Measure. Despite this being a new development many therapists are finding this a useful tool to evaluate their practice in both the public and private sectors.

1.8 CONCLUSION

There is no standardised assessment protocol available to occupation therapy clinicians for use on the psychiatric setting. This research study served to clarify assessment procedures for the occupational therapy clinician and to attempt to reduce the variation in assessment processes.

The development of an assessment protocol for the psychiatric setting will assist occupational therapy clinicians in making sound decisions about the MHCUs abilities as well will reduce the variation of services provided in different mental health care settings.

In the chapter to follow, literature surrounding measurement principles and various assessment methods and instruments are discussed. The uses of terms in the occupational therapy profession that relate to this research study are also clarified.

2. REVIEW OF THE LITERATURE

2.1 INTRODUCTION

Occupational therapy is concerned with the meaning that individuals' place on activities and occupations that are carried out in their daily routines [18, 19]. Participation in these activities is influenced by an individual's motivation, experience, abilities and limitations [18, 20]. Occupational therapists are trained to evaluate a person's abilities and limitations in a variety of life spheres in order to establish a baseline performance which is used to plan for treatment [9, 18].

Treatment is dependent on reliable and valid assessments; therefore it is imperative that occupational therapists use reliable and valid assessment methods. Fawcett highlights that in order to enable the measurement of treatment outcomes, therapists are encouraged to use standardised assessments that are valid and reliable [21]. With the evolution of the occupational therapy profession, it is essential that occupational therapists consistently investigate and evaluate assessment trends, as these evolve with the development of the profession.

On extensive review of the literature it was found that there is a paucity of relevant, efficient and cost effective assessment tools available to occupational therapists in mental health care practices. A computer-based search of various databases available on the World Wide Web was conducted. EBSCO Host was the primary search engine and searches were done of MEDLINE, ERIC, Health Source (Nursing/academic edition and Consumer edition), CINAHL Plus with full text and Academic search complete. With the recent development of the Activity Participation Outcome Measure [11] the paucity of assessment tools became more evident, as therapists began asking how one is to assess the eight domains as described in the Activity Participation Outcome Measure.

This chapter critically reviews important concepts and issues around assessment and outcome measurement in occupational therapy and focuses on the mental health care field.

2.2 OCCUPATIONAL PERFORMANCE AND ACTIVITY PARTICIPATION

In recent literature it has been well documented that within the occupational therapy profession there is an ongoing shift towards placing more emphasis on *occupational performance* [5, 6, 9, 13]. Despite the prominence of *occupational performance*, there is still uncertainty about certain terms that are used as interchangeable jargon in the occupational therapy profession. Turner, Foster and Johnson provide the following examples of terms that are often used interchangeably: 'activity', 'meaningful activity', and 'purposeful activity', which are all commonly used as interchangeable terms for 'occupation' [5]. Wilcock states that the term 'doing' is often used as a synonym for the word 'occupation' in the occupational therapy profession [22]. Turner et al then further highlights the term of 'occupational performance' which has been developed as a profession specific term [5]. On the other hand, Law and Baum [23] found that in the field of occupational therapy the word 'function', 'performance' and the term 'occupational performance' are used interchangeably.

The researcher found in numerous of the published articles that these terms were used interchangeably, thus emphasising the ambiguity as highlighted in the works of Turner et al [5], Wilcock [22] and Law and Baum [23]. This ambiguity created a need for these terms to be clarified for the purposes of this research.

To investigate the association and differences between these terms, it was necessary to explore the meaning of these in more detail. Classical literature, in the writings of Kielhofner [17, 24], Christiansen, Baum and Bass-Haugen [25], depict occupational performance in a number of ways.

Nelson in Kielhofner [24:116] suggests that "occupational performance refers to doing as an occupational form". Occupational forms are described as the variety of things one does as part of daily life, such as showering, dressing and cooking a meal to name a few [24]. If one were to highlight Kielhofner's key points around occupational performance, the following can be described:

- The human system, the environment and the task all contribute to occupational performance.
- Action is a central force in health, well-being, development and change.

- Performance includes the skills through which an individual does an activity.

Christiansen and Baum in Law and Baum [23] concur with Nelson in Kielhofner [24] that occupational performance is made up of one's actions, tasks, occupations and roles of daily life.

Wilcock defines occupation as a synthesis of doing, being and becoming. [22]. *Doing* is described as the mechanism for the engaging in tasks. *Doing* is the active part of occupation [26]. *Being* is about being true to one self – when the doer experiences an enhanced sense of self through thinking, reflecting and simply existing [22, 26]. Becoming can be described as a transformation where the doer changes, grows and develops identity [22, 26].

Gibson and Strong describe occupational performance as what a person actually does in his or her environment [27], and Crabtree describes it as "a specific kind of performing that includes the intention to perform, an outcome of the performance, and an assessment of the performing by the performer." [6:4]. While Gibson and Strong's [27] definition seems to poorly explain 'what a person does', Crabtree's [6] definition does include important elements: the intention to perform can be associated with an individual's motivation, outcome of performance can be associated with activity participation, and assessment of performance can be associated with evaluation. Furthermore, according to Gibson and Strong, "activity limitations" would imply deficits in occupational performance [27]. From this statement it is postulated that participation in activities would enhance occupational performance.

Turner highlights that when an occupational therapist refers to *occupation*, there are four themes that consistently emerge [28]. These themes being:

- Occupations are the fabric of doings of people's everyday lives
- Occupations are driven by people's aspirations, needs and environments
- Occupations relate to the purposeful use of time as defined by the individual
- Occupations are the means through which people control the balance of their lives

Turner notes that there is a contrast between occupation and activity. She believes that occupation drives activity, in that activities are short term tasks that are performed by an individual in order to reach certain occupational goals. She concludes that peoples occupations are a revelation of the "content and manner of the activities he performs" [29:22].

Another aspect to consider in investigation of the definition of terms is the International Classification of Functioning, Disability and Health, referred to as the ICF [3]. The ICF aims to provide a unified language in the health sectors. The approval of the ICF has been found to be an important step in the universality of terms in rehabilitation medicine [30]. It is important to note that the ICF describes functioning and disability in terms of body structures and functions and *activities and participation*. The definitions given to the terms activity and participation in the ICF are as follows: *activity* is *"the execution of a task or action by an individual"* and *participation* is *"involvement in a life situation"* [3:10]. In addition to this the ICF qualifies *activity limitations* and *participation restrictions*.

All the authors agree that within the terms of *occupation* and *occupational performance* there is an element of 'doing or action' [5, 6, 17, 22, 23, 25, 27]. There also seems to be an agreement on the *intention* and *purpose* of this *'doing*'. Crabtree however fails to characterise this intended and purposeful doing, and Gibson and Strong only describe 'activity limitations' and qualifies it no further. On the other hand, the ICF characterises *activity and participation*, but does not define *occupation* as a term that is used in the occupational therapy profession.

Kielhofner and Law and Baum take a more scientific stance when describing occupations and occupational performance [17, 23], whereas Wilcock uses a more philosophical approach [22].

It seems, however, that there is still ambiguity in terms and the use of interchangeable terms within the medical, and more specifically, the occupational therapy profession. This may be due to the fact that humans are complex and multifaceted beings which make it difficult to determine specific and clear cut definitions for performance and how this performance is carried out.

However, it was decided that Turner [5, 29] distinctively qualifies the contrast between activity and occupation, and the definition of activity and participation as found in the ICF were the most suitable notions for the purposes of this research study.

Therefore throughout this research study one should be clear that the term *activity participation* is referring to the doing of tasks that will make up a person's daily occupations.

Evaluation of an individual's activity participation is complex. As is demonstrated above, the term activity participation in itself it difficult to describe. Intrinsic and extrinsic affords and constraints have an influence on activity participation [6]. It is often the intrinsic factors that are more difficult to evaluate as they are abstract and cannot be seen and often referred to as latent variables. In people suffering from mental illness, their difficulties are not easy to evaluate and treat as they are abstract. In contrast, it often easier to evaluate and treat and physical injury as the affected area and associated difficulties are obvious.

Evaluation of an individual's activity participation can be determined by use of a variety of assessment methods. The objective of occupational therapy intervention is to enhance a person's activity participation so that they can successfully engage in daily occupations. In order to do this, one needs to establish activity limitations and participation restrictions. To evaluate the activity participation of an individual, an occupational therapist may embark on a variety of assessment methods. These are discussed below.

2.3 ASSESSMENT AND METHODS OF ASSESSMENT

Before one is to consider the various assessment methods, a brief discussion about the implications of the skills of the assessor should be considered.

All occupational therapists should be aware of the occupational therapy process [2]. The occupational therapy process, as adapted from Creek [2], mentions stages including baseline assessment, treatment planning, intervention, ongoing assessment or treatment review and final review (outcome measurement). Assessment is described as the process of measuring an individual's level of

functioning in one or more of the following areas: vocational, social, medical, personal or intellectual [1]. An assessment is undertaken to use data to describe a certain condition and enhance understanding of certain pathology in order to develop the best intervention for individuals [31]. Therapists with advanced expertise and experience are likely to be able to assess with greater proficiency and more accurately than relatively inexperienced therapists [32, 33]. In any setting, and with all assessment methods, the expertise and skill of the therapist should be acknowledged and worked into that therapists practice. Also the choice of assessment tools or assessment methods should complement the setting and be adapted to the individual scenario [33]. Therefore the skill and expertise of the therapist is vital in the accuracy of the assessment process.

A variety of formal and informal assessment methods have been described [9, 12, 13, 33]. Instruments used in the evaluation of MHCUs can be categorised into self-report assessments, rating scales, interviews (structured and unstructured) and performance assessments, all which are used to describe a profile of abilities and deficits at a point in time, predict performance at a future point in time, and monitor progress [9, 12, 13, 18]. Each of these assessment methods have strengths and limitations that should be carefully considered when deciding on what one needs to establish from assessment outcomes. The various assessment methods are discussed in the sections to follow.

2.3.1 INTERVIEWS

Conducting an interview is a common assessment method amongst clinicians in all disciplines of practice. Fawcett notes that in the occupational therapy process, the interview is usually chosen as the initial method of assessment [21]. Interviews may be informal or unstructured where information that is shared is directed by the person being interviewed. Dryer refers to this type of technique as open interviewing [8]. Structured or semi-structured interviews (or referred to as standardised interviews by Dryer [8]) are designed to elicit key information from the person being interviewed.

Limited amount of dialogue was found in the literature about the assessment method of interviews. This may be due to the fact that this is a commonly accepted method of assessment by all medical professionals.

It was, however, found that in the performance assessments that were reviewed, a number of these contained structured interview questions for certain evaluation items [13, 34, 35]. Further to this, no discourse was found that highlighted it as an ineffective or controversial assessment method. Therefore it can be surmised that structured interviews are an accepted method of assessment.

2.3.2 SELF-REPORT ASSESSMENTS

Self-report questionnaires that are completed by the person being evaluated themselves have become a popular method of assessment amongst clinicians, and researchers for a variety of reasons. On the contrary to an evaluator (clinician/researcher) having to carry out activities with a person as is done in a performance assessment – self-report questionnaires are filled out independently. Popularity for use stems from there being a great time-saving factor in the assessment process; subjective feelings are an important addition to a holistic assessment; and many of these self-report questionnaires are readily available and retrievable.

Myers, Holliday, Harvey and Hutchinson [36] conducted a study to determine whether self-report assessments are inferior when compared to functional performance assessments. A group of elderly individuals were asked to fill out a self report questionnaire and then perform correlating tasks to investigate the relationship between subjective reporting and performance of an actual task. It was found that self-report assessments were in no way psychometrically inferior nor more difficult to administer and interpret [36]. Furthermore, it was also found that on self-report measures, the rater had a tendency to underrate the difficulty of actually performing the task.

It is agreed that psychometrically one may find that self-report questionnaires and performance assessments may be similar, depending on the development of the instrument and investigation into its properties. However, the important issue surrounding self-report questionnaires is reliability of information that is provided on the subjective account by the reporter. [13].

There is an amplified risk of using self-report assessments in the psychiatric field as many persons affected by mental illness lose their ability to correctly judge

themselves and their performance. Cognitive and emotional functioning may be affected by psychopathology [13] and therefore subjective account of themselves would then be obscured. Williams in Patterson, Goldman, McKibbin, Hughs and Jeste [13] indicates that self-reports may be influenced by a MHCU's insight, values and situational events. Patterson et al. highlights the controversy over the use of self-report assessments, specifically where psychopathology will influence ability to self-report [13].

In self-report assessments, the person is rating their own capacity – what they believe they are capable of achieving on a day to day basis [12]. However, there is a marked difference between one's capacity and actual transformation of that capacity into task performance. This is where there is often an anomaly in the mentally ill population. Failure to translate capacity into self-initiated performance is one of the primary debilitating factors in mental illness [12]. It is thus not surprising that much of the literature suggests that use of self-reports in the psychiatric setting is suboptimal.

2.3.3 RATING SCALES AND DIRECT OBSERVATION

Before initiating a discourse around the use of rating scales, it is necessary to establish what is intended by various authors when the term *direct observation* is used.

Using observation during assessment is one of the key tools of practice in occupational therapy. Occupational therapists are specifically trained in the skill of observation [21]. Law in Fawcett [21] describes the expertise of the occupational therapist to be in drawing inferences based on their direct observation of a person's performance. In fact, observation is a principle of assessment rather than a method of assessment. Observation is constantly used by occupational therapists during the assessment (and treatment) process to gather information on the MHCU.

On the other hand, some authors have described direct observation as the observation of a person in a specific, short-lived task [12, 13]. By this, these authors are not referring to the principle of observation, but rather to direct observation in a single task or situation. For the purposes of this section of the

research study, one must realise the intention of the authors when they refer to direct observation.

By using direct observation as an assessment method, the evaluator is limited to the specific behavior or task the person is involved in at the time. Direct observation is often linked to a rating scale. The rating scale typically has criteria to be rated on a scale by the evaluator. However, this does not instruct the evaluator on the activity the person being evaluated should perform whilst the evaluator rates the performance. Therefore the evaluator must independently decide on a task that can be evaluated through direct observation onto the rating scale.

Moore, Palmer, Patterson and Jeste [12] describes direct observation as a more tedious process than using a subjective measure, but the information gained may be more reliable than that in a self-report situation.

Patterson et al. [13] has also suggested that using rating scales and direct observation typically relies on brief contact with the MHCU that seldom depicts a person's functioning in the real world.

Moore et al. [12] and Patterson et al. [13] concur that direct observation or rating scales are limited to a certain time and setting. Authors highlight performance-based assessments as the most suitable method for assessment.

2.3.4 PERFORMANCE ASSESSMENTS

According to Moore et al. [12] and Patterson et al. [13] performance-based assessments require a person to perform functional tasks. For instance, rather than questioning a person or their family member on their ability to cook (which is limited to a subjective account or collateral informants scope of objectivity), a performance-based assessment would entail having the person actually performing the task of cooking and the examiner making their own judgment on the person's skills. In essence the performance-based assessments require the performance of an activity. This is a unique assessment method used by occupational therapists [33]. The evaluation of a MHCU whilst performing an activity requires specific assessment criteria, astute observational skills as well as sound activity analysis skills [33].

Recently there have been a number of reviews in the psychiatric field that have reviewed performance-based assessments and measures of functionality [12, 37]. The first review, carried out by Lutchman, Thompson, Tait, Savage, Aitchison, Ruru and Mellsop [37], examined 25 scales. These scales were examined against criteria of domains included and psychometric properties. All 25 scales were evaluated and scored by at least three clinicians on a multidisciplinary rating panel. Of all the scales examined only one came close to meeting rating criteria. This was the Personal and Social Performance Scale [37]. It is important to note that Lutchman and colleagues decided to exclude self-report assessments in their review, once again emphasising the preference of performance assessments [37].

The second review (carried out by Moore, et al. [12]) conducted a computer based search of various data bases (psychological information database, cumulative index to nursing and allied health literature, publication database of biomedical and life science literature, health and psychological instruments) and identified 31 instruments that met inclusion criteria. All of the instruments were examined in terms of the functional domains measured, administration site and scoring, time, validation samples, psychometric properties and supporting articles. Of significant importance, is that there were only two multi-domain instruments that could be used across the population of those suffering from mental illness - namely the University of California, San Diego, Performance-based Skills Assessment (UPSA), and the Independent Living Scales (ILS) [12]. The UPSA included activities related to the United States context in the assessment such as communication (appropriate response of dialing 911 in an emergency); finance (making out cheques and counting dollar bills); and transportation (bus routes in San Diego). Assessments like these which are context specific, need to be adjusted when applied in other context, for example in South Africa. The ILS was initially created for assessment of persons who had suffered a traumatic brain injury, however, the possibility of using this instrument across a wider spectrum of psychiatric diagnoses has not been established, or at the least, has not been well publicised.

Review of this literature clearly indicates that there is a scarcity of psychiatric assessment tools available for use. This statement is supported by evidence from other researchers who feel that there is a need for straightforward and quantitative

tools that measure functional performance to be created and implemented [14]. It has also been documented that standardised assessments are useful in determining baseline performance [18].

If one looks at the research and current literature it can be concluded that performance-based assessments are growing as a more sought after assessment method as this means of assessment more reliably indicates a person's ability to perform in the real world. In addition to this, the use of activity as an assessment method is unique to the occupational therapy profession [33]. Paucity in this subject does exist, and the need for emphasis on assessments of activity participation, specifically in psychiatry, is recognised as a key area of development in the occupational therapy field. The development of the Activity Participation Assessment will aid the reduction of this paucity and create a performance assessment that can be used in the psychiatric field.

While performance-based assessments are an attempt to reliably measure a person's real-world functioning, potential limitations do exist. Firstly performance-assessments are often diagnostically specific, take a long time to carry out and are often costly and therefore unavailable to many therapists. In addition, one often uses a performance-based assessments in a contrived environment [13]. Contextual elements of performance will always play a role when an occupational therapist is assessing activity participation in a setting that approximates to the real world [13]. Typically the occupational therapy setting is of a supportive and therapeutic nature, therefore allowing the person to perform to their optimal potential. However when contextual elements replace the therapeutic setting (such as environmental, community and family pressures) one can find that the level of performance in the contrived environment does not always translate to similar performance in a real-world.

An occupational therapist would need to carefully understand the level of performance of the MHCU in order to bridge the gap between therapeutic and contextual performance. The Vona du Toit Model of Creative Ability provides the occupational therapist with a tool to specifically level each area of activity participation of an individual [15, 16]. This model provides occupational therapists

with a framework to provide the MHCU with the just right challenge to prepare them for the real-world.

Casteleijn has successfully applied the levels of creative ability in an outcome measure which will be described in the next section [11].

2.4 THE ACTIVITY PARTICIPATION OUTCOME MEASURE

In considering the occupational therapy process, as adapted from Creek [2], stages including baseline assessment, treatment planning, intervention, ongoing assessment or treatment review and final review (outcome measurement) are described. In order for the occupational therapy process to be carried out proficiently there must be a clear association between assessments and outcome measures. With the recent development of the Activity Participation Outcome Measure [11] therapists began asking how one is to assess the eight domains as described in the Activity Participation Outcome Measure.

The Activity Participation Outcome Measure was developed by Casteleijn and is based on the constructs of the Vona du Toit Model of Creative Ability [11]. A theoretical review of this model is provided in Appendix A for the reader's reference.

Casteleijn found that there was no effective outcome measure for occupational therapists in mental health care practice. The development of an outcome measure was felt to be crucial in the current state of health care in South Africa [11].

The outcome measure was developed by Daleen Casteleijn in cooperation with a number of OTs in mental health care practices in Gauteng. A participatory research design was utilised to gain input from clinicians and MHCUs [11, 31].
Eight performance domains, each with their own descriptive items emerged from qualitative and quantitative data analysis in the research study [11, 31]. These are described in table 2.1.

TABLE 2.1 DOMAINS AND ITEMS OF THE ACTIVITY PARTICIPATION ASSESSMENT

Domain	Items
Process skills	Attention, Pace, Knowledge, Skills Task concept, Organising space and objects Adaptation
Communication/interaction skills	Physicality: physical contact, eye contact, gestures, use of body Information exchange: speech and articulation, expressing needs, conversation Relations: forming relationships and rapport
Life skills	Personal care, grooming Personal safety, care of medication, use of transport Domestic skills, child care, money and budgeting skills Assertiveness, stress and conflict management Pre-vocational and vocational skills, problem-solving
Self esteem	Commitment to task or situation Using feedback , attitude towards self Awareness of good qualities , confidence in self , Social presence, self worth , pursuing goals
Role performance	Awareness of roles, role expectations and balance Role competency
Balanced life style	Time use and routines, habits Mix of areas (physical, mental, social, spiritual, rest)
Affect	Repertoire of emotions Control of emotions and mood.
Motivation	Active involvement, motives and drives Shows interest, goal-directed behaviour Locus of control

Each of the domains is measured on a rating scale of 18 increments. This rating scale is based on the Model of Creative Ability as described by Vona du Toit and her students and colleagues [15, 31]. In order to further understand the rating scale, the researcher refers the reader to the Appendix A detailing the key concepts of the Model of Creative Ability.

The knowledge and use of the Activity Participation Outcome Measure has spread rapidly in South Africa and abroad to the United Kingdom and Japan. Casteleijn provides regular training to therapists wanting to use the tool in South Africa and abroad.

Although some guidelines for the MHCUs level of activity participation does appear in the user manual [31], therapists using the outcome measure have raised the need for guidelines on a more rigorous and comprehensive assessment of the various domains. This was a primary reason for this current research study to be undertaken.

2.5 CONCLUSION

The use of interchangeable terms within the occupational therapy profession was highlighted. The discrepancy and associations between the terms of *occupation* and *activity* were discussed, as well as *occupational performance*. It was decided that throughout this research study, one should be clear that the term *activity participation* is referring to the doing of tasks that will make up a person's daily occupations [3].

To evaluate activity participation a variety of assessment methods were conversed. Structured interviews were surmised to be an accepted method of assessment. There was much controversy around the use of the self-report methods of assessment, and it was concluded that much of the literature suggests that use of self-reports in the psychiatric setting is suboptimal.

Moore et al. and Patterson et al. concur that direct observation / rating scales are limited to a certain time and setting [12, 13]. Authors highlighted performance-based assessments as the most suitable method for assessment.

Performance assessments are growing as a sought after assessment method as this means of assessment more reliably indicates a person's ability to perform in the real world. However it was clear that no assessment method can be used in isolation. A variety of methods needs to be undertaken in order to carry out a reliable assessment. The need for emphasis on assessments of activity participation, specifically in psychiatry, is recognised as a key area of development in the occupational therapy field. The development of the Activity Participation Assessment will aid the reduction of this paucity and create an assessment protocol that can be used in the psychiatric field.

However, one must not overlook the limitations of performance-based assessments in that performance in a therapeutically contrived environment does not always translate to performance in the contextual real-world setting. The Vona Du Toit Model of Creative Ability provides the occupational therapist with a tool to specifically level each area of activity participation of an individual [15, 16]. Casteleijn has used the Vona Du Toit Model of Creative Ability as a construct to develop an outcomes measure. This is known as the Activity Participation

Outcome Measure [11, 31]. Therapists using the outcome measure have raised the need for guidelines on a more rigorous and comprehensive assessment of the various domains. This was a primary reason for this current research study to be undertaken.

3. RESEARCH METHODOLOGY

A systematic approach to the design of the research methodology had to be taken as this study aimed to develop a valid performance-based assessment protocol that could be used in clinical practice. There were three objectives set out in order to achieve the aim of the study.

It was important to include qualitative elements (such as input from clinicians working in the field) as well as quantitative elements to enhance the scientific credibility of the tool. The design encompassed synthesising the qualitative and quantitative research methods and is detailed below.

3.1 RESEARCH DESIGN

A mixed method design and sequential approach was used [38]. The design of this study followed that of a methodological research design, which is commonly used for the development of new instruments and evaluative protocols [39]. A detailed research plan was constructed based on literary evidence (Benson in Bailey [39], Kline in Hemphill-Pearson [40]). This is presented in Figure 3.1, which for each phase of research indicates the data collection, subject selection, data recording procedure, data analysis, outcome and stage of Activity Participation Assessment development. The plan was also designed around the works of Polit and Beck who suggest that the conceptualisation of the constructs and content of a new measure may come from and exhaustive literature review or qualitative enquiry [41]. Both of these methods were included in the research techniques.

3.2 RESEARCH POPULATION

The Activity Participation Assessment is a tool that was developed for use in an in-patient psychiatric setting; for all those MHCUs referred for occupational therapy.

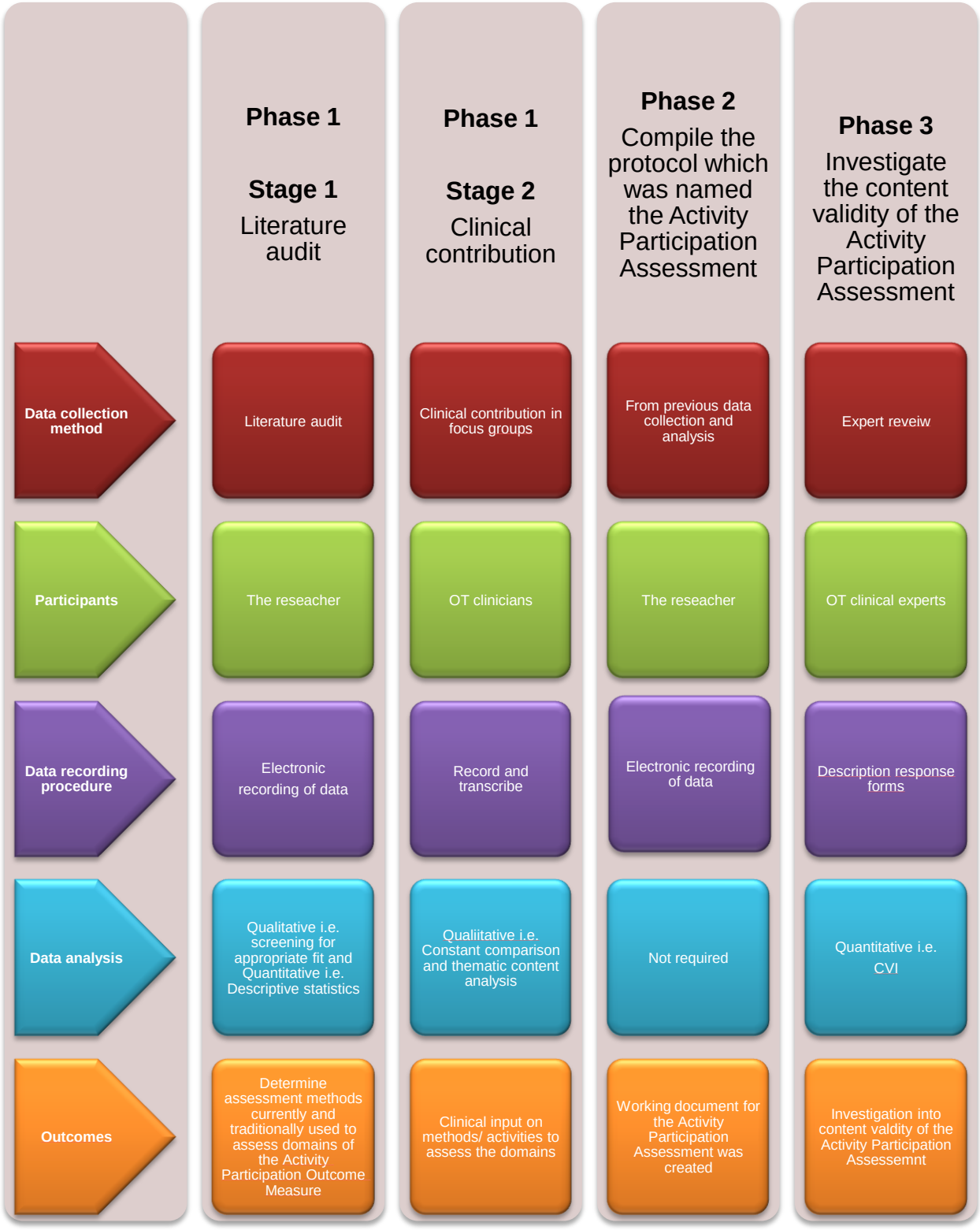


FIGURE 3.1: RESEARCH PLAN

The occupational therapy clinicians who work in these in-patient psychiatric settings formed the research population.

3.3 RESEARCH PLAN

The research plan was strategically divided into three phases each with their own outcome. This was done to ensure that the researcher met specific objectives for each section of data collection and analysis. Figure 3.1 depicts this. The phases were as follows:

- **Phase 1**: Determine appropriate assessment methods for each of the eight domains of the Activity Participation Assessment.
    - **Stage 1:** Literature audit
    - **Stage 2:** Clinical contribution
- **Phase 2:** Compile the protocol which was named the Activity Participation Assessment.
- **Phase 3:** Investigate the content validity of the Activity Participation Assessment.

The phases are detailed in the sections to follow.

3.3.1 PHASE 1: DETERMINE APPROPRIATE ASSESSMENT METHODS FOR EACH OF THE EIGHT DOMAINS OF THE ACTIVITY PARTICIPATION ASSESSMENT

The aim of this initial phase was to determine assessment methods currently and traditionally being used to assess the eight domains of the Activity Participation Assessment. This phase consisted of two stages.

3.3.1.1 STAGE 1: LITERATURE AUDIT

Data collection procedures included an audit of current literature surrounding different assessment methods in occupational therapy assessment.

3.3.1.1.1 DATA SOURCES

A computer-based search of various databases available on the World Wide Web was conducted. EBSCO Host was the primary search engine and searches were

done of MEDLINE, ERIC, Health Source (Nursing/academic edition and Consumer edition), CINAHL Plus with full text and Academic search complete. Searches were initially not limited to date of publication, but in the further screening process, a distinction was made between publications dated before 2000 (i.e. more than ten years ago) and those dated 2000 to 2010. The researcher intended this study to be relevant and up to date with current clinical trends. Therefore a criterion was stipulated that the instrument under review should have been used or cited in research not more than 10 years ago.

Initial umbrella search terms included “functional performance assessments”, “performance reviews”, “occupational therapy assessments”, “performance evaluations”, performance instruments”; “functional assessments” and “occupational therapy”. A search of the bibliographies of the identified articles was conducted to obtain additional articles on the performance-based instruments. Links to specific tools or instruments were followed to yield detailed results. The search was limited to instruments published in English and designed for use with English-speaking adults. Some of the instruments have been translated into other languages in further research studies – these instruments were not excluded as their primary publication language was English.

3.3.1.1.2 SELECTION OF APPROPRIATE INSTRUMENTS

Each possible tool or instrument that was found was screened for appropriate fit. These inclusion and exclusion criteria were decided upon based on a combination of the researcher’s objectives for Stage 1 and the current trends in literature relating to the characteristics of reliable assessment instruments. It was found that Moore et al. [12] and Patterson et al. [13] agreed that direct observation / rating scales were limited. Moore et al. [12] also emphasised the controversy of the use of self-report measures. Various authors highlighted performance-based assessments as the most suitable method for assessment [12, 13, 37]. Therefore self-report and rating scales/direct observation were excluded, and the emphasis was placed on structured and semi-structured interviews; as well as performance-based assessments.

The screening procedure followed two layers:

1. First each tool or instrument was screened and had to meet the following criteria:
    a. Should have been cited in research not more than 10 years ago. References could not date beyond 2000, unless accompanied by newer research.
    b. Must have specified activities (person being assessed has to perform an action) or it must be a structured or semi-structured interview (person being assessed subjectively answers semi-structured interview questions).
    c. Cannot be a rating scale without specific instruction for the performance on a certain task.
    d. Cannot be a self-report questionnaire.
2. If the instrument met the above criteria it was classified as “satisfies review criteria”. It was then subjected to further scrutiny where analysis was made according to which of the Activity Participation Outcome Measure domains the instrument in fact assessed and via what activities this assessment was made. Activity analysis, a vital skill of every occupational therapist, was used to match the requirements of the domains with the inherent characteristics of the activities.

The aim of this stage of the research was to determine assessment methods currently and traditionally being used to assess the eight domains of the Activity Participation Assessment. For this reason, emphasis was placed on the content of the various performance instruments. An attempt was made to locate research done into the development of the instrument, as well as to identify if the instrument was used as part of any clinical studies.

3.3.1.1.3 DATA EXTRACTION AND SYNTHESIS

From the available performance assessments, all instruments meeting the review criteria were incorporated into the results of the literature audit. Information was compiled based on current literature, activity specifications, type of assessment, and domains and items assessed (according to the Activity Participation

Assessment). By auditing the current literature, the researcher established theoretic propositions on possible themes that would later be compared with data from the next stage of research. These ideas were then used as a basis for the focus groups to be carried out in the next stage of the research process.

3.3.1.2 STAGE 2: CLINICAL CONTRIBUTION

For this stage of the research process, the data collection procedure was in the form of structured discussions within focus groups. Before these focus groups were carried out, the researcher set out a guide for a structured discussion.

The main aim of the focus groups was *to discuss how therapists assess the domains, and items, that appear in the Activity Participation Assessment*. The discussion guideline included a stipulated time spent on each of the eight domains

The structured discussions in the focus groups followed the following course:

For each domain the overall domain was initially introduced to the participants. For example the subjects were told that the domain to be discussed was “Process skills”. The definition of “Process skills” as well as the item that make up the domain was clarified before proceeding with further discussion. Casteleijn has detailed definitions of the domains in the Activity Participation Outcome Measure training manual [31] which was referred to. Following this the participants were asked to discuss the different assessment methods they use in their every day practice to assess the items that make up the domain. As part of the discussion the researcher also asked the participants to make comment on items that the research had found were not well-represented in the initial audit of the performance instruments. For example under the discussion on the domain of “Process skills” the items “pace, task concept, and adaptation” were not well represented. The participants were asked to have a discussion around the reasons for this.

The procedure described above was followed in each of the focus groups and for each of the eight domains. By following this structured procedure the researcher was able to gain specific information and knowledge of the participants that was required to reach the objective of the phase of the study.

Initially the number of discussion groups to be held was not stipulated, but was rather based on continuing groups until data had reached saturation point. It was envisaged that two discussion groups would be sufficient to reach this point.

Occupational therapy clinicians currently working in the psychiatric field were invited to participate in the discussion groups. Purposive sampling with the specific method of homogenous sampling was implemented. This method was decided on by the researcher as homogenous sampling focuses on a sample that belongs to the same group. By using a homogenous group, the variation in responses are reduced [42].

Occupational therapy clinicians from Johannesburg and Pretoria were invited to participate.

Occupational therapy clinicians had to meet the following inclusion criteria:

- Clinicians must have been working in adult psychiatry for at least three years.

The first discussion group was carried out in November 2009, with five clinicians attending the group. The second discussion group was carried out in April 2010. Two of the invited clinicians could not participate due to logistical reasons. Therefore three clinicians attended this group. In addition to the above, the researcher and supervisor were part of both of the focus groups.

Certain of the occupational therapy clinicians were deemed to be *expert clinicians* based on the suggestions as described in the literature [32]. An expert thinker and clinician should have the following characteristics:

- Knowledge is organized, so the clinician can interpret information from years of experience
- Experts use forward reasoning
- An expert has a substantial body of information about a topic and has considerable experience working with that topic of knowledge
- An expert uses interventions they know are more likely to work

- With experience most OTs are good at what they do. This means that usually experienced clinicians are more likely to be experts than relatively inexperienced clinicians.

After running the first focus group, it was necessary to run another focus group in order to consolidate and incorporate new themes from different occupational therapy clinicians. After the second focus group was held, the researcher felt that saturation point had been reached as no new themes or categories emerged and the ideas from the clinicians were similar to those found in the first focus group.

Audio recordings of the group discussions were taken and were transcribed by the researcher. Transcription information was then qualitatively analysed in the form of a constant comparison between findings of the literature appraisal carried out in Phase 1, the first focus group and the second focus group.

Each discussion group was transcribed and recurring subject matter was arranged into levels of vertical analysis (Table 3.1). Therefore at this stage there was vertical analysis of the first stage of the study (literature appraisal), and vertical analysis of the second stage of the study (the two discussion groups). The vertical levels of data were then compared horizontally by way of constant comparison [43].

An outline of how the constant comparison was constructed is outlined in Table 3.1.

As can be seen in the table, there were six vertical analysis columns that were compared horizontally to analyse recurring subject matter.

TABLE 3.1: CONSTANT COMPARISON

Domain	Literature Appraisal	Discussion Group 1	Other data from discussion group 1	Discussion group 2	Other data from discussion group 2	Recurring subject matter
The domain was specified here	The performance assessment with its content activities were specified here	All activity ideas were specified here	Any other potentially useful information for use in the next phase of the study was specified here	All activity ideas were specified here	Any other potentially useful information for use in the next phase of the study was specified here	Recurring subject matter was sorted into provisional themes

The constant comparison of data provided the researcher with a means to have an idea of possible emergent themes. Due to the extensive amount of data, it was necessary to re-analyse the data with a secondary form of analysis to ensure that no data had been omitted. The researcher therefore applied thematic content analysis [38] to the same data set.

Through the thematic content analysis the data was classified into codes, categories and themes. Results gained from the literature appraisal were also included in the analysis of each domain so that data could be synthethised for the next phase of research.

The words of the occupational therapists from the discussion groups were quoted or paraphrased to form the codes. This process of coding assisted the researcher to recognise subject matter of the discourse from the discussions. The codes were then grouped to form larger categories of similar ideas, which ultimately formed the themes.

The outcome of this phase was that the development of the Activity Participation Assessment was at the point where appropriate assessment methods had been determined for use in the assessment procedure.

3.3.2 PHASE 2: COMPILE THE PROTOCOL WHICH WAS NAMED THE ACTIVITY PARTICIPATION ASSESSMENT

In this phase the Activity Participation Assessment was compiled by using information obtained from the previously run focus groups, as well as the audit of the performance assessments in the literature.

The assessment was compiled based on the themes of the content found in the literature and in the focus groups. Each domain was compiled according to the assessment methods found from the previous phase of the study. These assessment methods were organized under suitable headings and sub-headings in the document. At this stage, this arrangement of the assessment methods was the first version to be used in the next phase of the study namely the content validity as to validate the headings and sub-headings.

The outcome of this phase was that a protocol outlining the utility and administration of the Activity Participation Assessment was created and available for review in the next phase of the research study.

3.3.3 PHASE 3: INVESTIGATE THE CONTENT VALIDITY OF THE ACTIVITY PARTICIPATION ASSESSMENT

In this phase investigation of the content validity of the Activity Participation Assessment took place. A qualitative descriptive design was applied to conduct this phase.

It was decided by the researcher that investigation of the content validity of the tool was a suitable place for commencement of the exploration of its psychometric properties [41, 44]. Polit and Beck say that content validity is relevant in the development of affective measures [41]. It is further noted that researchers who are designing new measures should focus on construct and content validity of the measure or tool [41]. Content validity is based on the extent to which a measurement reflects the specific intended domain of content [45]. According to Kielhofner [46], in order to validate the content of a tool, one has to define the domain that is being measured and operationalise the domain. Expert review of the tool is recommended as a valuable method for acquiring constructive feedback on the newly developed tool [41, 46, 47]. Content validity can be examined by expert review of an instrument. The most widely used method is the index of content validity [48]. Lynn suggested that two types of content validity index (CVI) had to be calculated [48]. The first type was the index for individual items in a measure, referred to as the item-level CVI. The second type, the index for the overall measure, referred to as the scale-level CVI.

A description response form was constructed where criteria was used to evaluate the tool [41, 47]. Polit and Beck refer to a four point relevancy rating scale [41]. The description response form was representative of the domains and items being assessed in the Activity Participation Assessment, and included each subsection of the document to be reviewed.

A rating scale of 1 to 4 was used with the following related descriptions:

1 Not at all relevant and applicable
2 Minimally relevant and applicable
3 Adequately relevant and applicable
4 Good relevance and applicability

When the CVI was calculated, the rating scale was divided into irrelevant (scores 1 and 2) and relevant (scores 3 and 4). The relevant scores ultimately constituted the actual index calculations. The description response form was structured with the rating scale along the top horizontal column, and description of the item to be rated down the left side column. A column for additional comment was added down the right side column. The description response form was created to be user-friendly and easily comprehendible. An example of this form can be found in Appendix B.

Clinical experts were invited to participate in the review of the content of the activity participation assessment. The recommended number of content experts needed differed widely in the available literature, and it seems that there is minimal conformity in the number of experts used in the validation process. Rubio et al. [47] suggested that the number of content experts be six to twenty, whilst Polit and Beck indicate the minimum number to be three [41].

Clinical experts in the Johannesburg and Pretoria regions were invited to participate. It was initially intended that *research experts* would be sought to review the content of the activity participation assessment.

The following subject selection criteria were initially set out:

A *research expert* was defined by meeting the following inclusion criteria:

- Must have a basic knowledge (training at undergraduate level) of the Vona du Toit Model of Creative Ability [15, 16].
- Must have more than three years experience in the psychiatric field.
- Must have published or presented at a national or international conference in the psychiatric field.

However, due to a lack of actual available research experts in the psychiatric field, and further to that, a lack of response to participate in the study, clinical experts were then sought.

Occupational therapy clinical experts were defined by meeting the following characteristics as described in the literature [32]. An expert thinker and clinician should have the following characteristics:

- Knowledge is organized, so the clinician can interpret information from years of experience
- Experts use forward reasoning
- An expert has a substantial body of information about a topic and has considerable experience working with that topic of knowledge
- An expert uses interventions they know are more likely to work
- With experience most OTs are good at what they do. This means that usually experienced clinicians are more likely to be experts than relatively inexperienced clinicians.
- Experts must have had *more than three* years experience in the psychiatric field.

All of the clinical experts participating in the study fulfilled these characteristics. Two of the experts had relatively few years of experience, however they were accepted into the study as they were involved in the supervision of students and academic activities, and both had post graduate qualifications.

Once experts were identified; they were contacted via e-mail or telephonically to request their participation in the research study. All participants were informed of the purpose of the study, a brief description of the activity participation assessment, a brief explanation of the description response form, the reasons they fit the inclusion criteria for an expert were outlined.

Seventeen experts were invited to participate in this phase of the study. Fourteen experts accepted the invitation to participate in the reviewing of the content of the activity participation assessment.

The experts were invited to attend a common location at a set time to review the Activity Participation Assessment. For those that were unable to attend, they were given the option of filling out an electronic review form.

At the experts meeting, the description response form was verbally explained in detail to make certain there were no discrepancies in the way different raters interpreted the form. Experts were invited to choose which domains of the Activity Participation Assessment they preferred to review based on their own opinions of their clinical knowledge and experience.

Ultimately, twelve response forms were obtained from the experts meeting or by way of electronic response.

The description response forms were then analysed and results were analysed to determine the CVI on four levels (Table 3.2):

TABLE 3.2: FOUR LEVELS OF CONTENT VALIDITY INDICES

For each domain	**Item-level index** **Mean item-level index** **Total mean item-level index**
For the Activity Participation Assessment in its entirety as a tool	**Scale-level CVI**

The outcome of this phase was that the content validity of the Activity Participation Assessment was established. The development of the Activity Participation Assessment was at the point where the assessment protocol had been subjected to investigation of one of its psychometric properties.

3.4 ETHICS AND PERMISSION

Before beginning the research, relevant ethical clearance was sought from the Committee for Research on human subjects - Medical, at the University of the Witwatersrand (Appendix C). Where participants were occupational therapy clinicians or experts in the focus groups and reviewing process, they were invited to participate in the procedures. Signed consent was sought for participation and audio recordings to be made. It was the occupational therapy clinicians personal responsibility to obtain permission from their employers if the groups were to be

held during working hours. An example of the consent forms can be found in Appendix D.

Clinicians and experts opinions and contributions were not recorded or noted individually, therefore statements could not be tracked back to a specific person. Content of the discussions were not about MHCUs per se but rather the knowledge and experience of the clinicians. Therefore confidentiality was not a contention. Also it was found that the clinicians did not request to remain anonymous at any stage.

3.5 CONCLUSION

This study had three phases each with its own data collection and analysis procedures. A literature audit and focus groups with qualitative data analysis formed part of Phase 1 of the study. This was then followed by Phase 2 which included compiling the Activity Participation Assessment. Phase three consisted of evaluating the content validity of the tool. The methods for the various research procedures have been outlined. The results that were found during each phase of the research study are contained in the chapter to follow.

4 RESULTS

4.1 INTRODUCTION

In this chapter the results of the three phases of the research study are detailed. Data is presented in terms of qualitative review, thematic content analysis and content validity.

4.2 PHASE 1: DETERMINE APPROPRIATE ASSESSMENT METHODS FOR EACH OF THE EIGHT DOMAINS OF THE ACTIVITY PARTICIPATION ASSESSMENT

Results from phase one of the study are detailed in the following sections. Data collected from the literature audit and clinical contributions are included.

4.2.1 STAGE 1: LITERATURE AUDIT

The data collection procedure for this stage included an audit of current literature surrounding the use of activities in assessment from the performance-based assessments.

The initial search and screening procedure outlined in chapter 3 (research methodology), yielded 35 possible instruments. Of these it was found that 15 satisfied review criteria. However, two of the instruments (Occupational therapy assessment of performance and support and the Occupational circumstances assessment interview and rating scale), were found to be inaccessible in terms of detailed content and were therefore not included for review.

Thirteen instruments were included in the reviewing process. The majority of these performance-based assessments were found in peer-reviewed journal articles and peer edited texts.

The screening of each performance assessment and fit into the review criteria can be found in detail in Appendix E.

4.2.1.1 INCLUDED INSTRUMENTS

The 13 performance instruments that satisfied review criteria are described in Table 4.1 below:

TABLE 4.1: PERFORMANCE INSTRUMENTS THAT SATISFIED REVIEW CRITERIA

1.	**Bay Area functional Performance evaluation**	BaFPE
2.	**Independent living scale**	ILS
3.	**Kholman evaluation of living skills**	KELS
4.	**Performance test of activities of daily living**	PADL
5.	**Personal and social performance scale**	PSP Scale
6.	**Social skills performance assessment**	SSPA
7.	**UCSD performance-based skills assessment**	UPSA
8.	**Performance assessment of self care skills**	PASS
9.	**Medication management ability assessment**	MMAA
10.	**Worker role interview**	WRI
11.	**Worker environment impact scale**	WEIS
12.	**The role checklist**	Role checklist
13.	**Assessment of Motor and Process Skills**	AMPS

4.2.1.2 EXCLUDED INSTRUMENTS

The following instruments were excluded from the study, due to various reasons explained below:

- Stress Management Questionnaire
- Canadian Occupational Performance Measure
- Occupational Self Assessment
- Social Adjustment scale self report
- Social Adaptation self-report scale
- Self description questionnaire
- Social Problem-solving inventory
- Hospital Anxiety and Depression Scale
- Beck's Depression Inventory
- Assessment of Occupational Functioning – collaborative version
- The St. George Hospital memory Disorders Clinic Occupational Therapy Assessment Scale
- Occupational therapy assessment of performance and support

- Occupational circumstances assessment interview and rating scale
- Volitional Questionnaire
- Assessment of communication and interaction skills
- Task skills scale
- Interpersonal skills scale
- Role scales
- Occupational Therapy Task observation scale
- MEDYN Questionnaire
- Everyday Functioning Battery
- Time & change test

Although these instruments do contain content specific and probable valuable evaluation characteristics, they could not be included in this literature appraisal due to the objectives of this research study.

Self report questionnaires could not be included, therefore the following tools were excluded: the Stress Management Questionnaire, Canadian Occupational Performance Measure, Occupational Self Assessment, Social Adjustment scale self report, Social Adaptation self-report scale, Social Problem-solving inventory, Hospital Anxiety and Depression Scale, Beck's Depression Inventory, and the Assessment of Occupational Functioning – collaborative version.

The St. George Hospital memory Disorders Clinic Occupational Therapy Assessment Scale and the Occupational therapy assessment of performance and support were excluded as limited information on content could be found on these instruments. The St. George Hospital memory Disorders Clinic Occupational Therapy Assessment Scale, is a scale, and so would also fall into the category of an 'observation tool'.

Other observation tools that were excluded were: Volitional Questionnaire, Assessment of communication and interaction skills, task skills scale, interpersonal skills scale, role scales, Occupational Therapy Task observation scale, and the MEDYN Questionnaire.

The Everyday Functioning Battery was excluded on the grounds that it is a combination of various instruments and uses component parts as a means of complete evaluations.

The Time & change test was also excluded, as it was found that this instrument did not assess any domains outlined in the Activity Participation Outcome Measure.

4.2.1.3 DOMAIN AND ITEM EXAMINATION

Each of the instruments in Table 4.1 was subjected to an in-depth examination of assessment and administration content. The reason for this was to establish which of the domains and items (of the Activity Participation Outcome Measure and Activity Participation Assessment) the instrument in question did in fact assess.

The domains and items of the Activity Participation Outcome Measure [31] are outlined below in Table 4.2.

TABLE 4.2: DOMAINS AND ITEMS OF THE ACTIVITY PARTICIPATION OUTCOME MEASURE

Domain	Items
Process skills	Attention, Pace, Knowledge, Skills Task concept, Organising space and objects Adaptation
Communication/interaction skills	Physicality: physical contact, eye contact, gestures, use of body Information exchange: speech and articulation, expressing needs, conversation Relations: forming relationships and rapport
Life skills	Personal care, grooming Personal safety, care of medication, use of transport Domestic skills, child care, money and budgeting skills Assertiveness, stress and conflict management Pre-vocational and vocational skills, problem-solving
Self esteem	Commitment to task or situation Using feedback , attitude towards self Awareness of good qualities , confidence in self , Social presence, self worth , pursuing goals
Role performance	Awareness of roles, role expectations and balance Role competency
Balanced life style	Time use and routines, habits Mix of areas (physical, mental, social, spiritual, rest)
Affect	Repertoire of emotions Control of emotions and mood.
Motivation	Active involvement, motives and drives Shows interest, goal-directed behaviour Locus of control

It is the researcher's view that some of the items lend themselves to being "latent" in nature. Certain items, for example adaptation, task concept and motivation cannot be assessed through tangible means. The assessment of these tends to be abstract and the assessor has to often infer or use clinical reasoning to assess these.

For accuracy purposes, the items that each instrument assessed overtly were nominated during the in-depth examinations, meaning that items that are latent in nature which are to be observed and drawn from a variety of situations were not nominated during the in-depth examinations. In other words only the overt items were included for each domain. For example, *using feedback* is a latent item – the nature of one's use of feedback cannot be assessed from analysing an end product of effort, but has to be carefully observed on many situations. Another example is task concept, which is a latent item as it is not tangible. The assessment of task concept is a collection of observations and inferences made the therapist over a variety of situations.

The following table (Table 4.3) indicates which performance-based assessments assessed which domains:

TABLE 4.3: PERFORMANCE ASSESSMENTS AND DOMAINS THEY ASSESS

	BaFPE	ILS	KELS	PADL	PSP Scale	SSPA	UPSA	PASS	MMAA	WRI	WEIS	Role Checklist	AMPS
Process Skills	X												X
Communication/ social interaction	X	X			X	X	X						
Lifeskills		X	X	X	X		X	X	X	X	X		X
Role Performance			X							X		X	
Balanced Lifestyle					X					X		X	
Motivation										X			
Self esteem	X	X								X			
Affect					X								

Eight of the 13 instruments evaluated multiple domains (62%) and five evaluated single domains (38%). The majority of instruments evaluated more than one item within the domains simultaneously.

There was considerable variability in the instruments in terms of the domains being assessed. It was found that life skills was represented most often in 10 of the 13 performance assessments (76.9%) and affect and motivation were represented the least in 1 of the 13 performance assessments (7.7%). Communication/interaction was the second most represented domain in 5 of the 13 performance assessments (38.5%). Role performance, balanced lifestyle and self esteem were represented in 3 of the 13 performance assessments (23.1%). Process skills were represented in 2 of the 13 performance assessments (15.4%).

*(*Note: a domain was classified as being represented even if only 1 item was represented in that domain)*. Figure 4.1 depicts the above data:

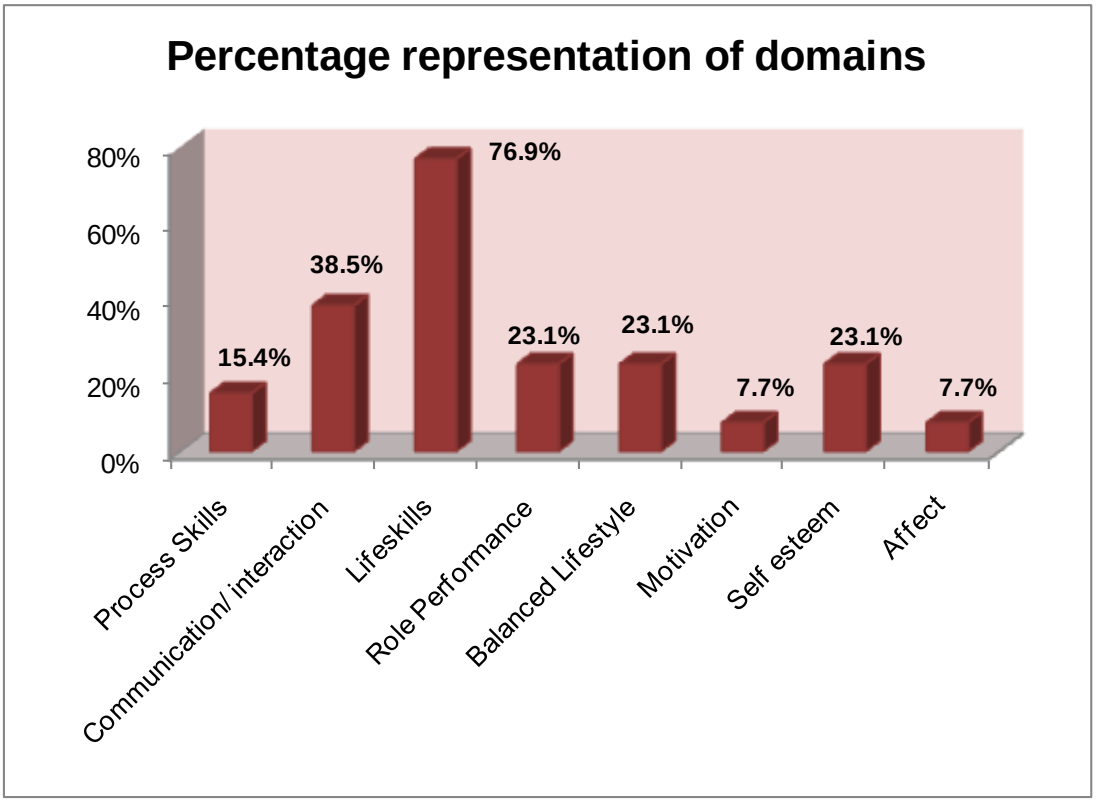


FIGURE 4.1: PERCENTAGE REPRESENTATION OF DOMAINS

In considering each domain as a separate entity, the percentage representation of each constituent item is outlined in Table 4.4 below.

TABLE 4.4: FREQUENCY AND PERCENTAGES OF REPRESENTATION OF ITEMS AND DOMAINS

	Frequency of domain representation out of total of 13 performance assessments		**Frequency of item representation out of no. of assessments representing the domain**	**Percentage equivalent of frequency**
Process Skills	**2 out of 13** (15.4%)	Attention	2 out of 2	**100.0%**
		Pace	1 out of 2	**50.0%**
		Knowledge	2 out of 2	**100.0%**
		Skills	2 out of 2	**100.0%**
		Task Concept	0 out of 2	**0.0%**
		Organizing space and objects	2 out of 2	**100.0%**
		Adaptation	1 out of 2	**50.0%**
Communication/ social interaction	**5 out of 13** (38.5%)	Physicality - Non verbal communication	3 out of 5	**60.0%**
		Information exchange	4 out of 5	**80.0%**
		Relations	4 out of 5	**80.0%**
Life skills	**10 out of 13** (76.9%)	Personal care, hygiene, grooming	6 out of 10	**60.0%**
		Personal safety, care of medication	4 out of 10	**40.0%**
		Use of transport	3 out of 10	**30.0%**
		Domestic skills	5 out of 10	**50.0%**
		Child care skills	0 out of 10	**0.0%**
		Money management and budgeting skills	4 out of 10	**40.0%**
		Assertiveness	1 out of 10	**10.0%**
		Stress management	0 out of 10	**0.0%**
		Conflict management	0 out of 10	**0.0%**
		Problem solving skills	2 out of 10	**20.0%**
		Pre-vocational skills	2 out of 10	**20.0%**
		Vocational skills	3 out of 10	**30.0%**
Role Performance	**3 out of 13** (23.1%)	Awareness of roles	3 out of 3	**100.0%**
		Role expectations	1 out of 3	**33.3%**
		Role balance	1 out of 3	**33.3%**
		Competency	1 out of 3	**33.3%**
Balanced Lifestyle	**3 out of 13** (23.1%)	Time use and routines	1 out of 3	**33.3%**
		Habits	1 out of 3	**33.3%**
		Mix of occupations	3 out of 3	**100.0%**

	Frequency of domain representation out of total of 13 performance assessments		Frequency of item representation out of no. of assessments representing the domain	Percentage equivalent of frequency
Motivation	**1 out of 13** (7.7%)	Active involvement	1 out of 1	**100.0%**
		Motives and drives	1 out of 1	**100.0%**
		Shows interest	1 out of 1	**100.0%**
		Goal directed behaviour	1 out of 1	**100.0%**
		Locus of control	1 out of 1	**100.0%**
	Frequency of domain representation out of total of 13 performance assessments		**Frequency of item representation out of no. of assessments representing the domain**	**Percentage equivalent of frequency**
Self esteem	**3 out of 13** (23.1%)	Commitment to task or situation	1 out of 3	**33.3%**
		Using feedback	0 out of 3	**0.0%**
		Self worth	2 out of 3	**66.7%**
		Attitude towards self	2 out of 3	**66.7%**
		Awareness of qualities	1 out of 3	**33.3%**
		Social presence	2 out of 3	**66.7%**
Affect	**1 out of 13** (7.7%)	Repertoire of emotions	0 out of 1	**0.0%**
		Control	1 out of 1	**100.0%**
		Mood	0 out of 1	**0.0%**

4.2.1.3.1 REPRESENTATION IN INSTRUMENTS

4.2.1.3.1.1 PROCESS SKILLS

A total of two performance assessments were found to represent the process skills domain. Of the seven items making up the process skills domain, six of the items were accounted for in these two performance assessments.

The range of frequency of representation of items in the domain of process skills is considerably large; ranging from no representation to total representation in the domain specific assessments. *Attention, knowledge*, *skills* and *organising space and objects* are well represented in two of the two performance assessments (100.0%) whilst *pace and adaptation*, although they are represented, are only found in one of the two performance assessments (50.0%). Task concept is not represented at all.

4.2.1.3.1.2 COMMUNICATION / INTERACTION

A total of five performance assessments were found to represent the communication/interaction domain. All three of the items making up the communication/interaction domain were accounted for in the performance assessments.

The items of the communication/interaction domain were well represented, all featuring in three or four of the performance assessments. *Physicality* has a lower representation when compared with *information exchange* and *relations,* in that it only appears in three of the five assessments (60%).

4.2.1.3.1.3 LIFE SKILLS

A total of ten performance assessments were found to represent the life skills domain. Of the twelve items making up the life skills domain, nine of the items were accounted for in these ten performance assessments. Even though in totality the life skills domain had the highest representation when compared to other domains – the items were poorly represented with only a small minority being represented in more than half of the performance assessments.

Personal care, hygiene, grooming and *domestic skills* had the highest representation of all the items in the life skills domain. *Money management* and *personal safety/care of medication* were accounted for in four of the performance assessments (40.0%). *Assertiveness* was poorly represented in one of the performance assessments (10.0%), and *child care skills*, *stress management* and *conflict management* were not represented at all in any of the assessments. The range of representation of remaining items extended from two or three (20.0% or 30.0%) of the ten performance assessments (*problem solving skills, prevocational skills, use of transport and vocational skills*).

4.2.1.3.1.4 ROLE PERFORMANCE

A total of three performance assessments were found to represent the role competence domain. All four of the items making up this domain were accounted for in the performance assessments.

Awareness of roles was accounted for most often (100.0%) with *role balance, role expectations* and *competency* represented in one of the three performance assessments (33.3%).

4.2.1.3.1.5 BALANCED LIFESTYLE

A total of three performance assessments were found to represent the balanced lifestyle domain. All three of the items making up the balanced lifestyle domain were accounted for in the assessments.

Representation ranged from one out of three (33.3%) for *time use and routines* and *habits*; to three out of three (100%) for *mix of occupations*.

4.2.1.3.1.6 MOTIVATION

Only one performance assessment was found to represent the motivation domain. All five of the items making up the motivation domain were accounted for.

All five items were represented in the assessment at 100.0%.

4.2.1.3.1.7 SELF ESTEEM

A total of three performance assessments were found to represent the self esteem domain. Of the six items making up the self esteem domain, five of the items were accounted for in these three performance assessments.

Using feedback was not represented at all in the assessments. *Self worth, attitude towards self* and *social presence* had the highest representation two out of three of the performance assessments (66.7%). *Commitment to task or situation* and *awareness of qualities* were only accounted for in one of the three performance assessments (33.3%).

4.2.1.3.1.8 AFFECT

Only one performance assessment was found to represent the affect domain. Of the three items making up this domain, only one of the items was accounted for in the performance assessment.

Of the three items making up the domain – only *control* was accounted for in the performance assessment whereas *repertoire of emotions* and *mood* did not feature at all.

After analysing the performance measures and establishing which domains they in fact assessed, it was then essential for the researcher to examine each performance measure to draw on the activity ideas and compile a pool of activities that could possibly be used for assessment in each of the domains. The researcher was concerned with the type of activities that the performance instruments made use of, rather than replicating the exact presentation and method of activities from the assessments.

Appendix F details all of the activity ideas that were pooled from the performance assessments for each domain.

The following is a summary of the types of activities that were found.

4.2.1.3.2 ACTIVITIES FOUND IN EACH DOMAIN

4.2.1.3.2.1 PROCESS SKILLS

It was found that the instruments that assessed items under the process skills domain consisted mostly of tasks that involved the use of one's hands and creation of an end product. Paper and pencil activities were among the tasks whilst personal care and domestic tasks (specifically kitchen skills) were also used in the AMPS to assess processing. All activities shared the commonalties of requiring a definite procedure or progression of thinking, as well as the use and arrangement of some class of tools or materials that have to be used within the process to reach an end point.

4.2.1.3.2.2 COMMUNICATION / INTERACTION

Activities found to assess the communication/interaction domain consisted of interview questions, group activities, and role play scenarios. Interview questions focused on relationships with partners, family and friends as well as behaviour in social settings. The group activities were designed to facilitate interaction with others, as with the role play activities, however the scenarios were based on

possible real life events. All interview questions followed the theme of engagement with others; and activities all had the common principle of including at least one another person in the activity.

4.2.1.3.2.3 LIFE SKILLS

As life skills is a relatively large domain with numerous items, it made sense that there were many different activities found in the literature to assess these. As with other domains the activities consisted of interview questions, the majority of activities being based on personal care tasks and domestic tasks, as well as mention of role-play tasks. Interview questions covered the majority of items, and generally focused on managing of personal care and finances, managing the home, health and safety management, vocational skills and work environment. A role play scenario was indicated as a possibility for assessment of medication management. The bulk of activities were domestic tasks – with an emphasis on meal preparation and cooking. Other home management activities did feature such as cleaning, pet care, gardening and entertaining guests. Basic personal care tasks such as grooming and feeding were also included in the activity batch.

4.2.1.3.2.4 ROLE PERFORMANCE

Unlike the other domains thus far; role competence was found to be assessed solely through the use of interview questions. Generally questions covered the person's account of his apparent roles, how he fits these roles and if he perceives that expectations of him within these roles are being met.

4.2.1.3.2.5 BALANCED LIFESTYLE

As with the role performance domain, interview questions were the exclusive method for assessing balanced lifestyle. Questions covered the areas of work and work habits, time spent on social activities and daily routines.

4.2.1.3.2.6 MOTIVATION

Once again, as with the previous two aforementioned domains, motivation was assessed exclusively through interview questions. The areas covered by interview

questions included work-related and personal goals, personal causations, ones interests and commitment and readiness for change.

4.2.1.3.2.7 SELF ESTEEM

Self esteem was assessed by a combination of interviewing and activities, although interviewing seemed the more common method used. A task group with others present was indicated as an activity assessment, and interviewing was constructed around social adjustment; personal belief in abilities and expectations of success or failure, as well taking responsibility for self.

4.2.1.3.2.8 AFFECT

Affect was measured through interviewing, with the questions focused on behaviour, more specifically on destructive and aggressive behaviour.

The types of activities found for each domain have been summarised in the Table 4.5 below:

TABLE 4.5: SUMMARY OF ACTIVITIES

Process skills	**Communication / interaction skills**	**Life skills**	**Role performance**
Creation of an end product Paper and pencil activities Personal care tasks Domestic tasks (kitchen tasks)	Interview questions Group activities Role play scenarios	Interview questions Personal care tasks Domestic tasks Role play	Interview
Balanced lifestyle	**Motivation**	**Self esteem**	**Affect**
Interview	interview	Interview Task group	Interview

Once this stage of research was complete and results had been compiled, it was then necessary to obtain clinical opinion on assessment methods used to assess each of the outlined domains. This process detailed in the following section.

4.2.2 STAGE 2: CLINICAL CONTRIBUTION

Clinical opinion was gained through drawing on the expertise of occupational therapy clinicians by way of focus groups. Audio recordings of the group discussions were taken and then transcribed by the researcher. In order to combine the results from the previous stage of the study, and results from this stage of the study, it was necessary to determine a method that would allow the comparison of large data sets to be later organised into themes.

Demographics of the participants of the focus groups are shown in the graph 4.2 to follow (this includes the combined demographics from both focus groups).

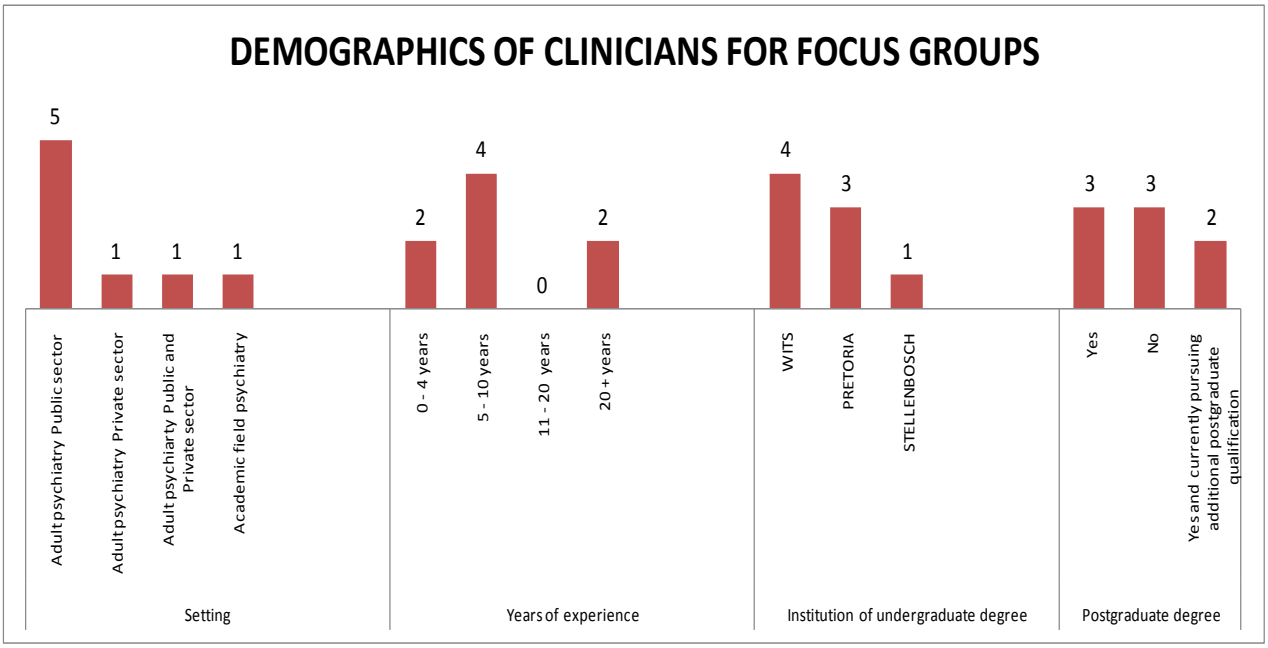


FIGURE 4.2 DEMOGRAPHICS OF CLINICIANS FOR FOCUS GROUPS

The majority of the clinicians worked in the public sector in adult psychiatry. One clinician was in the private sector, and one worked in both of these.

The majority of the clinicians had 5 – 10 years of experience, with two having less than four years and two having more than twenty years of experience. The mean years of experience was 7.1 years.

The University of the Witwatersrand was the prominent institution of undergraduate qualification.

Three of the clinicians had a postgraduate degree and one had a postgraduate qualification and was currently studying to obtain another postgraduate qualification.

Constant comparison [43] was initially used as a technique to compare the data between the literature audit and the focus groups.

An example of how the researcher determined recurring themes from the constant comparison can be found in Table 4.6. The other domains can be found in Appendix G.

However due to the extensive amount of data, it was necessary to re-analyse the data with a secondary form of analysis to ensure that no data had been omitted. The researcher therefore applied thematic content analysis to the same data set.

Through the thematic content analysis the data was classified into codes, categories and themes. Owing to the extensive amount of discourse and data collected, the most valuable codes were included in the thematic analysis of each domain which are described in Tables 4.7 to 4.29.

TABLE 4.6: EXAMPLE OF CONSTANT COMPARISON FOR THE COMMUNICATION / INTERACTION DOMAIN

Domain	Literature Appraisal	Discussion Group 1	Discussion group 2	Thematic analysis

Communication / interaction	**BaFPE**
	• One to one interview
	• Meal time
	• Unstructured group
	• Structured activity group
	• Structured oral group
	ILS
	• Communication
	• Social Adjustment (questions relating to self, others, values)
	PSP Scale
	Partner/spouse related questions
	• Family related questions
	• Social relationships related questions
	• Disturbing behavior related questions
	SSPA
	• Role play scenarios (tenant meeting neighbour, tenant calling with complaint to landlord)
	UPSA
	• Using telephone (emergency number; Information; making an appointment)
		• Groups
		  ○ Team work
		  ○ Competition
		  ○ Group production chain
		  ○ First contact (initial interaction with patient)
		• Collateral information
		  ○ Ward
		  ○ Night
		  ○ Weekends
		  ○ Home
		• Observe in the dining hall
		• Games
		  ○ 30 seconds
		  ○ Monopoly
		  ○ Ludo with lower functioning
		• Sports
		  ○ Playing in a team
		• Dances
		• Braais
		• Survivor game
		  ○ Obstacle courses
		• Skills-master game
			• Assess it constantly
			• Structured and unstructured group
			• Interactions during interviewing
			• Working in a team
			• Board games
			• How do they behave in the ward
			• How do they behave
			• Are they aggressive
			• Occupational therapy assistant gives assistance
				THEME 1
				• Team games/competitions
				THEME 2
				• Board games
				THEME 3
				• Sporting activities
				THEME 4
				• Social activities
				THEME 5
				• Structured activity group
				THEME 6
				• Role play scenarios
				THEME 7
				• Interview questions
				THEME 8
				• Collateral information
				THEME 9
				• Observation in unstructured setting

Details have been condensed here for exemplary purposes

4.2.2.1 PROCESS SKILLS

The themes, categories and codes for process skills can be found in Table 4.7.

TABLE 4.7: THEMATIC CONTENT ANALYSIS FOR PROCESS SKILLS

PROCESS SKILLS		
THEMES	**CATEGORIES**	**CODES**
General guidelines	Using of activities is important	"I think activity is important here" "…actually see how the patient engages, how he executed, what does he do with the material"
	Familiar and unfamiliar activities should be used	Use both an unfamiliar and familiar activity for comprehensiveness sake
	Activity complexity should range from less to more complex	"…complex and less complex, structure and less structure, one where there isn't actually a lot of structure and one that really has structures in place" "…give them a more challenging activity"
	Amount of structure provided can be changed	"…complex and less complex, structure and less structure, one where there isn't actually a lot of structure and one that really has structures in place" "change the instructions or part that they have to do"
	There is overlap with other domains	"I think you have to watch them over lots of different scenarios" "Task concept goes very much with life skills" "Pace and motivation and organising space"
	Materials, equipment, instructions should be available for use	Materials need to be available to observe how the person engages "…something that has got instructions"
Methods for assessment	Activities	"I think activity is important here" "Work kind of activities"

PROCESS SKILLS		
THEMES	**CATEGORIES**	**CODES**
Activity ideas	Paper and pen activities	"Paper activities I find usually work quite well: folding, measuring." Origami Paper based activities are easily gradeable
	Arts and crafts activities	Making a card Decoupage Leatherwork
	Kitchen activities	Baking
	Standardised assessments	"We have the DTVP-A" "The CAM. But the CAM is not really standardised" COTNAB "…or use the MODAPTS which I use a lot to standardise activities" "…the WASP has a time factor" BaFPE AMPS

Table 4.8 details the performance measures obtained from the initial literature audit, and opinion from the clinicians.

TABLE 4.8: STANDARDISED ASSESSMENTS FOR PROCESS SKILLS

Literature audit	Clinical contribution
BaFPE	Modular arrangement of predetermined time standards
AMPS	Developmental test of visual perception – adult version
	Cognitive assessment of Minnesota
	Chessington occupational therapy neurological assessment battery
	Work ability screening programme

4.2.2.2 COMMUNICATION / INTERACTION SKILLS

The themes, categories and codes for communication/interaction skills can be found in Table 4.9.

TABLE 4.9: THEMATIC CONTENT ANALYSIS FOR COMMUNICATION / INTERACTION SKILLS

COMMUNICATION / INTERACTION SKILLS		
THEMES	**CATEGORIES**	**CODES**
General guidelines	This can be observed continuously in all settings	"That's once again something I would observe all the time, not necessarily in a specific activity" "And I often think it's all the time"
	You have to have others present to facilitate communication	Group activities "…one on one you won't see that skills coming through, or the lack of it" "social experience"
	There is overlap with other domains	Observe all the time
Methods for assessment	Activities	*As detailed under Activity ideas in this table*
	Interviewing	"…when you're interviewing them" Pick up on boundaries or over familiarity
	Collateral information	"I think collateral information is quite important here"
	Standardised assessments	BaFPE ILS PSP Scale SSPA UPSA
Activity ideas	Teamwork activities	"…groups where they have to work together" "…a chain where everybody has to work together" "playing in a team" "…survivor type of thing – like an obstacle course" "the island game"
	Board games	"Games work well" 30 seconds Monopoly or ludo Jenga
	Sporting activities	"All sports" Team sports
	Role play	"But sometimes if you do swap them around and let them play different roles in a situation – you do see the pathology"
	Social games	General knowledge Social bingo
	Informal activities	"…dances or braais"

All of the standardised assessments in the communication/interaction domain were found in the literature and were not mentioned by the therapists.

4.2.2.3 ROLE PERFORMANCE AND BALANCED LIFESTYLE

Role performance and balanced lifestyle were joined as it was found that the themes for assessment of these domains were similar.

The themes, categories and codes for role performance and balanced lifestyle can be found in Table 4.10.

TABLE 4.10: THEMATIC CONTENT ANALYSIS FOR ROLE PERFORMANCE AND BALANCED LIFESTYLE

ROLE PERFORMANCE AND BALANCED LIFESTYLE		
THEMES	**CATEGORIES**	**CODES**
Methods for assessment	Activities	*As detailed under Activity ideas in this table*
	Interviewing	"…ask him to explain the role to me" "…ask them about the role and then ask questions to see if they know what is expected in that role" "…interviewing around that [the role they say they hold]" "What do they do in the day" "Ask them about their habits" "It's mostly interview type questions"
	Standardised assessments	Role checklists The worker role interview Activities health checklist Role checklist WRI KELS PSP Scale
Activity ideas	24 hour pie chart or day planner	Wheel for the 24 hour day "The pie chart" Day planner

The clinicians also made addition to the bank of standardised assessments that can be used to assess the domain. Table 4.11 details the performance measures obtained from the initial literature audit, and opinion from the clinicians.

TABLE 4.11: STANDARDISED ASSESSMENTS FOR ROLE PERFORMANCE AND BALANCED LIFESTYLE

Literature audit	Clinical contribution
Role checklist	Activities Health checklist
WRI	
KELS	
PSP Scale	

4.2.2.4 MOTIVATION

The themes, categories and codes for motivation can be found in Table 4.12.

TABLE 4.12: THEMATIC CONTENT ANALYSIS FOR MOTIVATION

MOTIVATION		
THEMES	**CATEGORIES**	**CODES**
General guidelines	The assessor needs to clarify with the MHCU what she thinks she is observing	"Ask the client clarifying questions" "…listen between the lines"
	Motivation changes depending on the type of activity and interests	"…may not be primarily motivated by activities" "…observation in known and unknown activities"
	There is overlap with other domains	Observe in prevocational skills groups During leisure groups or unstructured leisure time "…linked a lot to process skills" Locus of control is seen in problem solving and conflict management
Methods for assessment	Interviewing	"Ask them what they do over weekends in the hospital" "I address them openly"
	Standardised assessments	"…the interest checklist" WRI

The clinicians also made addition to the bank of standardised assessments that can be used to assess the domain. Table 5.13 details the performance measures obtained from the initial literature audit, and opinion from the clinicians.

TABLE 4.13: STANDARDISED ASSESSMENTS FOR MOTIVATION

Literature audit	Clinical contribution
WRI	Interest checklist

4.2.2.5 AFFECT

The themes, categories and codes for affect can be found in Table 4.14.

TABLE 4.14: THEMATIC CONTENT ANALYSIS FOR AFFECT

AFFECT		
THEMES	**CATEGORIES**	**CODES**
General guidelines	Self report questionnaires can be used, but with caution	"This is the most popular one [domain] to have self-report questionnaires in" "There is a place for them [self report questionnaires]" "I think their own reporting is what they hear from others and what they want you to hear" "…they just don't have the insight to do this"
	There is overlap with other domains	"All those different activities we've mentioned already" "…generally observing them"
Methods for assessment	Interviewing	"…you can get to an understanding in interviewing that you might not have gotten to if they had just ticked a box"
	Collateral information	"Collateral information for mood is also important"
	Standardised assessments	HADS BECKS PSP Scale

The clinicians also made addition to the bank of standardised assessments that can be used to assess the domain. Table 4.15 details the performance measures obtained from the initial literature audit, and opinion from the clinicians.

TABLE 4.15: STANDARDISED ASSESSMENTS FOR AFFECT

Literature audit	Clinical contribution
PSP Scale	Hospital anxiety and depression scale
	Beck depression inventory

4.2.2.6 SELF ESTEEM

The themes, categories and codes for self esteem can be found in Table 4.16.

TABLE 4.16: THEMATIC CONTENT ANALYSIS FOR SELF ESTEEM

SELF ESTEEM		
THEMES	**CATEGORIES**	**CODES**
General guidelines	Group members should be chosen with caution	"The problem with an unknown group is if there are [people] that are difficult, it is extremely non-therapeutic and you can do a lot of harm"
	There is overlap with other domains	"…it links quite well to motivation"
Methods for assessment	Activities	*As detailed under Activity ideas in this table*
	Standardised assessments	BaFPE ILS WRI
Activity ideas	Self awareness activities	"…some quizzes like how do you feel about yourself" "…do a group on what are other peoples first impressions of me" "A self group" "cut out pictures and words on all aspects of self" "You can grade from cognitive self to likes and dislikes to ideal self" "…use the Kawa model"
	Coat of arms	"Coat of arms"
	Self survey	"Do things like: things I like…, things I don't' like…, I'm good at…, I'm not good at…" "I describe myself as…" "How do I feel about my body…?"

4.2.2.7 LIFE SKILLS

The themes, categories and codes for life skills can be found in Tables 4.17 to 4.29.

TABLE 4.17: THEMATIC CONTENT ANALYSIS FOR LIFE SKILLS - SELF CARE

LIFE SKILLS – SELF CARE		
THEMES	**CATEGORIES**	**CODES**
General guidelines	Consider culture	"Personally I am not comfortable watching a person shave or bath or something like that"
	Observe in all settings	"…what he looks like" "Observation from the occupational therapy assistants" "…you just observe all the time"
Methods for assessment	Activities	*As detailed under Activity ideas in this table*
	Interviewing	"Directional questions"
	Collateral information	"I think collateral information is important" "…get collateral information to confirm your observations"
	Standardised assessments	*As detailed in Table 4.29: Standardised assessments for life skills*
Activity ideas	24 hour pie chart or day planner	"How your day looked before you were admitted – what they were actually doing"
	Numbers games	"I also often use the game whereby each number they throw on the dice is an activity that meets a requirement for a personal management activity"

TABLE 4.18: THEMATIC CONTENT ANALYSIS FOR LIFE SKILLS - CHILD CARE

LIFE SKILLS – CHILD CARE		
THEMES	**CATEGORIES**	**CODES**
General guidelines	Linked to role performance	Does the person know what being a mother entails
	Usually overt if problematic	"I feel that if a person has children and the children are well taken care of, then don't go scratch where it is not needed" "If it is a problem it stands out"
Methods for assessment	Interviewing	Determine if they have the knowledge to take care of a child
	Collateral information	"Collateral information was so important" "You've got to always basically triangulate"

TABLE 4.19: THEMATIC CONTENT ANALYSIS FOR LIFE SKILLS - PERSONAL SAFETY

LIFE SKILLS – PERSONAL SAFETY		
THEMES	**CATEGORIES**	**CODES**
General guidelines	Personal history is important	"Here we look at personal history for me" "The history here is very important"
	Observations of general safety precautions	"Check their general awareness" Are they aware of safety when crossing the street or working in the kitchen
Methods for assessment	Interviewing	"What type of situations they get themselves into" "…listen very carefully [to what they are telling you]"
	Standardised assessments	*As detailed in Table 4.29: Standardised assessments for life skills*

TABLE 4.20: THEMATIC CONTENT ANALYSIS FOR LIFE SKILLS - CARE OF MEDICATION

LIFE SKILLS – CARE OF MEDICATION		
THEMES	**CATEGORIES**	**CODES**
General guidelines	Difficult to assess in-patient setting	Structured environment with controlled medication regime
Methods for assessment	Interviewing	"Mostly be interview type of questions" "How do they feel about the medication" "…there is an emotional connection to the medication" "…do they experience side effects"
	Collateral information	"When they come back from a pass out, ask the family" "collateral from home or the nurses"
	Standardised assessments	*As detailed in Table 4.29: Standardised assessments for life skills*
Activity ideas	Medication simulation task	An activity idea from the literature

TABLE 4.21: THEMATIC CONTENT ANALYSIS FOR LIFE SKILLS - USE OF TRANSPORT

LIFE SKILLS – USE OF TRANSPORT		
THEMES	**CATEGORIES**	**CODES**
General guidelines	Difficult to assess in-patient setting	Structured environment. No opportunity to go into the community.
Methods for assessment	Interviewing	"Well that's also very much an interview type of thing" "Do you have a car?" "Do you walk?" "Do you take taxis?" Where to get public transport tickets
	Standardised assessments	*As detailed in Table 4.29: Standardised assessments for life skills*

TABLE 4.22: THEMATIC CONTENT ANALYSIS FOR LIFE SKILLS - DOMESTIC SKILLS

LIFE SKILLS – DOMESTIC SKILLS		
THEMES	**CATEGORIES**	**CODES**
General guidelines	There is overlap with other domains	"…use domestic skills to assess a lot of things"
Methods for assessment	Activities	*As detailed under Activity ideas in this table*
	Standardised assessments	*As detailed in Table 4.29: Standardised assessments for life skills*
Activity ideas	Menu and shopping list planning	"…working out a menu"
	Cooking or baking	"…like cooking or baking." "…cook a meal like chicken, vegetables and rice." "…like scones or cupcakes"
	Cleaning tasks	"…told a patient he is like a cleaner" "See what they're doing to clean up after themselves" "…sweeping, or cleaning the floor or making the bed"
	Laundry tasks	Cleaning their shoes or clothes in the wards

TABLE 4.23: THEMATIC CONTENT ANALYSIS FOR LIFE SKILLS - ASSERTIVENESS

LIFE SKILLS – ASSERTIVENESS		
THEMES	**CATEGORIES**	**CODES**
General guidelines	Continuous observation	"…also an observation I'd make with communication/interaction."
Methods for assessment	Activities	*As detailed under Activity ideas in this table*
Activity ideas	Board games	"We use a board game called pardon."

TABLE 4.24: THEMATIC CONTENT ANALYSIS FOR LIFE SKILLS - BUDGETING AND MONEY MANAGEMENT

LIFE SKILLS – BUDGETING AND MONEY MANAGEMENT		
THEMES	**CATEGORIES**	**CODES**
General guidelines	Context of the MHCU is important	"Sometimes there's no need to budget because they don't have any money."
Methods for assessment	Activities	*As detailed under Activity ideas in this table*
	Interviewing	"Ask them what they were doing before, were they actually budgeting or not" "How do they decide what they spend their money on?" "Lots of interview questions."
	Collateral information	Important to find out who is taking care of the persons money if they are not doing it themselves "…budget is again also an issue for collateral"
	Standardised assessments	*As detailed in Table 4.29: Standardised assessments for life skills*
Activity ideas	Money management devised games	A money management games was designed by a student
	Paying by cheque and balancing cheque book	Can a person fill out a cheque sample
	Using banking forms	Can a person use banking forms correctly.
	Budget tabulation	"…write down what their expense are now and what they will be"
	Budget collages	Budget collages where they have to pick out of a newspaper or magazine the necessary items
	Grocery store simulation	"…empty boxes of stuff and put the labels on them and observe what the person would buy"

TABLE 4.25: THEMATIC CONTENT ANALYSIS FOR LIFE SKILLS - STRESS AND CONFLICT MANAGEMENT

LIFE SKILLS – STRESS AND CONFLICT MANAGEMENT		
THEMES	**CATEGORIES**	**CODES**
General guidelines	Personal history is important	Explore past stressful and conflict situations "From the history you'll find a lot of information"
Methods for assessment	Activities	*As detailed under Activity ideas in this table*
	Interviewing	"…tell me about a conflict situation" "…how did you deal with this" Get the persons view on how the experience life currently "Ask about stress and what makes them stressed"
	Collateral information	"…get reports from nursing staff about conflict on the wards"
	Standardised assessments	*As detailed in Table 4.29: Standardised assessments for life skills*
Activity ideas	Activities with a timed component	"…things like [the game of] pass the bomb – the time constraint with that."

TABLE 4.26: THEMATIC CONTENT ANALYSIS FOR LIFE SKILLS - PROBLEM SOLVING

LIFE SKILLS – PROBLEM SOLVING		
THEMES	**CATEGORIES**	**CODES**
Methods of assessment	Activities	*As detailed under Activity ideas in this table*
	Interviewing	"I get the patient to tell me why they are making the decisions that they are making" "…give them a scenario and then they have to say what they'd do first, second, third and fourth" "What is a problem that you are having difficulty with at the moment?" "What have you tried, and what has worked?"
	Standardised assessments	*As detailed in Table 4.29: Standardised assessments for life skills*
Activity ideas	Computer games with logical reasoning	"More on a cognitive level are often also the use of computer programs"

TABLE 4.27: THEMATIC CONTENT ANALYSIS FOR LIFE SKILLS - PREVOCATIONAL SKILLS

LIFE SKILLS – PREVOCATIONAL SKILLS		
THEMES	**CATEGORIES**	**CODES**
General guidelines	Linked to process skills	Assess during prevocational skills groups "Prevocational skills are linked to process skills"
Methods for assessment	Standardised assessments	*As detailed in Table 4.29: Standardised assessments for life skills*

TABLE 4.28: THEMATIC CONTENT ANALYSIS FOR LIFE SKILLS - VOCATIONAL SKILLS

LIFE SKILLS – VOCATIONAL SKILLS		
THEMES	**CATEGORIES**	**CODES**
Methods of assessment	Activities	"…structured program with different activities" "…a variety of elements cover vocational skills"
	Interviewing	"What job they had" "Do they have the same job and are they going back to it?" "What did their job entail?"
	Collateral information	"Get collateral information about performance at work"
	Standardised assessments	*As detailed in Table 4.29: Standardised assessments for life skills*
Activity ideas	Work simulation tasks	Depending on their work you can devise an activity to simulate work tasks.

The clinicians also made addition to the bank of standardised assessments that can be used to assess the domain. Table 4.29 details the performance measures obtained from the initial literature audit, and opinion from the clinicians.

TABLE 4.29: STANDARDISED ASSESSMENTS FOR LIFE SKILLS

Literature audit	Clinical contribution
WRI	Therapists portable skills assessment module
WEIS	Cognitive assessment of Minnesota
ILS	Chessington occupational therapy neurological assessment battery
KELS	Work ability screening programme
PADL	Jacobs prevocational assessment
PSP Scale	Sensory profile
UPSA	
PASS	
MMAA	
AMPS	

During the thematic analysis, it was found that for all domains the following two themes as described in Table 4.30 were usually present:

TABLE 4.30: MAJOR THEMES 1

Theme from clinicians	Labeled by the researcher
The methods that therapists use to assess the domain	**Methods of assessment**
Other important information for assessment of the domain	**General guidelines**

Where the domain included activities for assessment, the following theme, as depicted in Table 4.31, was also present:

TABLE 4.31: MAJOR THEMES 2

Theme from clinicians	Labeled by the researcher as
Activities that can be used to assess this domain	**Activity ideas**

Therefore the three major themes from the thematic content analysis are displayed in Figure 4.3.

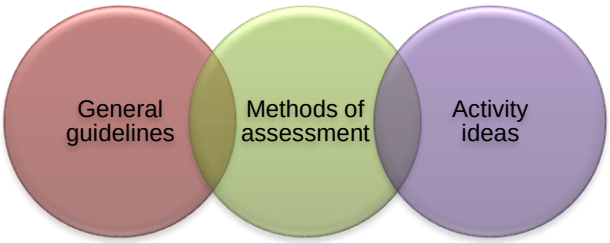


FIGURE 4.3 THREE MAJOR THEMES

Under each of the three major themes, categories were found.

Under the theme of *general guidelines*, a scattering of information was found between domains due to the guidelines being specific to that domain. .

This was also the case with *activity ideas*, as activities are usually used to assess a specific group of elements.

For the theme of *methods of assessment*, four categories were strongly evident, namely: interview, activities, collateral information, and standardised assessments. Although all of these categories were not present in each domain, they were found to be present in the domains where they were appropriate.

Figure 4.4 gives a diagrammatic depiction of the categories:

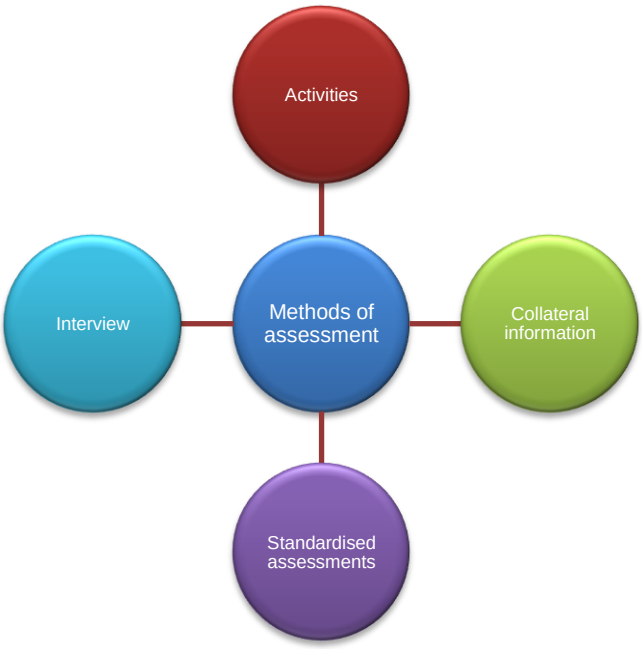


FIGURE 4.4 CATEGORIES FOR METHODS OF ASSESSMENT

At the end of this phase of research, detailed themes for each domain had been established through systematically organising the data. It was then necessary to compile all these themes into a working document.

4.3 PHASE 2: COMPILE THE PROTOCOL WHICH WAS NAMED THE ACTIVITY PARTICIPATION ASSESSMENT

Once the themes had resulted from Phase 1 of the study, the Activity Participation Assessment had to be developed. The assessment had already been named as the Activity Participation Assessment due to the fact that it was linked to the Activity Participation Outcome Measure. When Casteleijn was developing this outcome measure, the term “activity participation” was deemed a fit description of the core of occupational therapy and furthermore as a key assumption of the Vona du Toit Model of Creative Ability [11].

It was decided by the researcher that the document containing information on the Activity Participation Assessment should be constructed in an easy to follow format that was structured in order to ensure the greatest clinical utility.

An introduction, background and information on research procedures used in the development of the Activity Participation Assessment were included at the beginning of the document. An overview of the Activity Participation Assessment and Activity Participation Outcome Measure was also included to give the reader a brief overview of the content and use of these tools. In addition to this, a brief description of Vona du Toit’s Model of Creative ability and the key concepts of this model was outlined to give the reader a basic understanding of the constructs this tool is modeled upon. Furthermore the validity of the Activity Participation Assessment is described in terms of the face validity and content validity (This section was added after the investigation into the content validity).

The document covers each of the eight domains. The major sections of information to be covered under each domain are as follows:

- The definition of each domain as defined by Casteleijn [11]
- The items that make up each domain as defined by Casteleijn [11]

- General guidelines to be aware of when assessing each domain
- General requirements of the activities that can be used to assess each domain
- Important elements to observe when assessing each domain
- Methods that are suitable for assessment

Under the heading of *methods that are suitable for assessment*, the following methods are described in detail if they are applicable to that domain:

- Interviewing
- Activities
- Collateral information
- Standardised assessments

The researcher constructed the major sections of information based on the themes resulting from research conducted in Phase 1. The following Table 4.32 shows how this information was compiled:

TABLE 4.32: SOURCES AND COMPILATION OF THE MAIN SECTIONS OF THE ACTIVITY PARTICIPATION ASSESSMENT

MAIN SECTIONS	SOURCE OF THIS INFORMATION
The definition of each domain as defined by Casteleijn	Casteleijn's research study [11]
The items that make up each domain as defined by Casteleijn	
General guidelines to be aware of when assessing each domain	Themes located under *General guidelines* from results in the previous section
General requirements of the activities that can be used to assess each domain	
Important elements to observe when assessing each domain	
Methods that are suitable for assessment	Themes located under *Methods for assessment* from the previous results section

The concluding statements to the Activity Participation Assessment are included at the end of the document, as well as the references. Furthermore, the appendices

are included and cover detailed instructions for activities discussed in the document where applicable, and the performance-based assessments that are mentioned in the document are summarised in brief for the readers' information.

Examples of sections from the Activity Participation Assessment can be found in Appendix H and I. Due to space limitations the entire document of the Activity Participation Assessment, which is approximately 150 pages in length, could not be included in its entirety in this dissertation. For the purposes of this research study, examples of certain sections of the document including the domains and examples of activity instructions have been included in Appendix H and I for the reader's reference.

4.4 PHASE 3: INVESTIGATE THE CONTENT VALIDITY OF THE ACTIVITY PARTICIPATION

Once the Activity Participation Assessment had been developed, it was necessary to begin the validation process of the tool.

As detailed in the research methodology, 12 description response forms were filled out by the experts and captured by the researcher.

The demographics of the experts is detailed below:

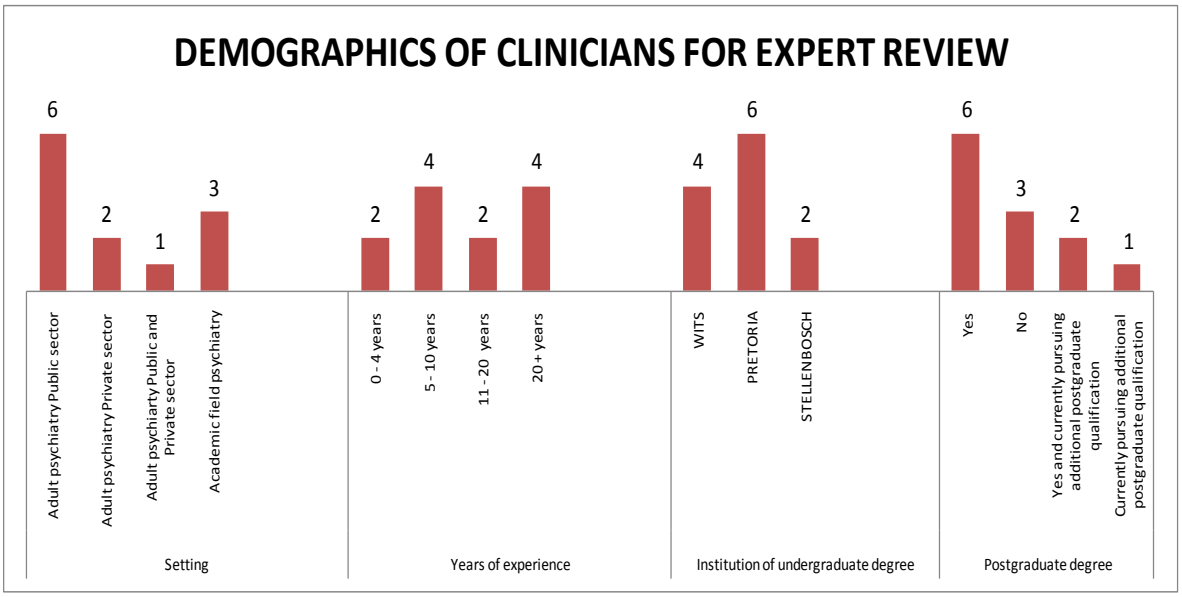


FIGURE 4.5 DEMOGRAPHICS OF CLINICIANS FOR EXPERT REVIEW

Half of the experts worked in the public sector in adult psychiatry, two in the private sector and one on both of these. Three experts were in the academic field.

Half of the experts had more than 10 years of experience, with four of them having more than 20 years of experience. The mean years of experience was 16.7 years.

Pretoria University was the prominent institution for undergraduate qualification.

More than half of the experts had postgraduate qualifications, with three currently pursing postgraduate studies.

It was initially decided to divide the domains equally between the experts so that each domain could be reviewed by six or seven different experts. This decision was made due to the fact that the Activity Participation Assessment is a comprehensive tool and the content to be reviewed was extensive. Dividing this information up equally between experts resulted in constructive and reliable review. Having six experts reviewing each domain complied with the evidence in literature that suggests six to twenty experts [47].

The domains were divided covering equal quantities of content. This is displayed in Table 4.33.

TABLE 4.33: DIVISION OF DOMAINS

Division 1	Division 2
Process skills	Life skills (part 2)
Communication/Interaction skills	Role performance and balanced lifestyle
Life skills (part 1)	Self esteem
	Affect
	Motivation

Six experts reviewed each division. In total the number of reviewers for the tool was 12.

The description response forms contained a rating scale of one to four as outlined under the research methodology. Data was analysed and results were dichotomised into relevant (a rating of 3 or 4) or irrelevant (a rating of 1 or 2). An example of the description response form can be found in Appendix B.

Results were analysed to determine the CVI on four levels [48], as displayed in Table 4.34.

TABLE 4.34: FOUR LEVELS OF CONTENT VALIDITY INDICES

For each domain	**Item-level index** **Mean item-level index** **Total mean item-level index**
For the APA in its entirety as a tool	**Scale-level CVI**

TABLE 4.35: AN EXAMPLE OF CALCULATION OF CVI

ROLE PERFORMANCE AND BALANCED LIFESTYLE					
DESCRIPTION OF ENTRY	**Ratings of 1 and 2** (Irrelevant category)	**Ratings of 3 and 4** (Relevant category)	**Item-level CVI**	**Mean Item-level CVI**	**Total mean item-level index CVI**
	Number of raters rating in the irrelevant category	Number of raters rating in the relevant category			**0.92**
1. GENERAL GUIDELINES TO BE AWARE OF WHEN ASSESSING THESE DOMAINS	0	6	**1.00**	**1.00**	
2. WHAT METHODS ARE SUITABLE FOR ASSESSMENT				**0.83**	
2.1 Interview	1	5	**0.83**		
2.2 Activities			**0.67**		
2.2.1 *24 hour pie chart/day planner*	2	4	**0.67**		
2.3 Standardised assessments	0	6	**1.00**		

To calculate the *item-level index* the following procedure was followed:

- Add the number of raters that scored the item as relevant.
- Divided this by the total number of raters.

To calculate the *mean item-level index* the following procedure was followed:

- Add the item-level index scores as calculated above.
- Divide this by the number of items under the general section.

To calculate the *total mean item-level index* the following procedure was followed:

- Add the mean item-level index scores as calculated above.
- Divide this by the number of sections.

To calculate the *scale-level CVI* the following procedure was followed:

- Add the total mean item-level index scores as calculated above
- Divide this by the number of domains.

An example of this procedure is outlined in Table 4.35.

The results of the CVIs for each domain are displayed in Tables 4.36 to 4.43 to follow.

4.4.1.1 PROCESS SKILLS

The results of the CVI for process skills are presented in Table 4.36.

TABLE 4.36: CVI FOR PROCESS SKILLS

	Item level CVI	Mean item level CVI
GENERAL GUIDELINES WHEN ASSESSING THIS DOMAIN		1.0
Activity use is important	1.0	
Both a familiar and unfamiliar activity should be used	1.0	
Complex and simple	1.0	
Structured and unstructured	1.0	
No domain is assessed as a sole element	1.0	
GENERAL ACTIVITY REQUIREMENTS		1.0
WHAT TO LOOK OUT FOR		1.0
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		1.0
Activities	1.0	
Paper and pen activities	1.0	
Arts and crafts	1.0	
Kitchen activities	1.0	
Standardised assessments	1.0	
Total mean item level CVI		**1.0**

Results for this domain indicate that all item level CVI, and therefore all mean item level CVI were 1.0. This resulted in a total mean item level CVI for process skills of 1.0.

4.4.1.2 COMMUNICATION / INTERACTION SKILLS

The results of the CVI for communication/interaction skills are presented in Table 4.37.

TABLE 4.37: CVI FOR COMMUNICATION INTERACTION

	Item level CVI	Mean item level CVI
GENERAL GUIDELINES WHEN ASSESSING THIS DOMAIN		1.0
Continuous observation	1.0	
Formal and informal settings	1.0	
Ensure interaction	1.0	
No domain is assessed as a sole element	1.0	
GENERAL ACTIVITY REQUIREMENTS		1.0
WHAT TO LOOK OUT FOR		1.0
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		0.98
Interview	1.0	
Structured activities	0.93	
Board games	1.0	
Sporting and teamwork activities	1.0	
Role play scenarios	0.60	
Social games	1.0	
Informal activities		1.0
Collateral information		1.0
Total mean item level CVI		**1.0**

Results for this domain indicate a total mean item level CVI of 1.0 for communication / interaction. Role play scenarios under the structured activities section yielded an item level CVI of 0.60. Some experts felt that role play scenarios are sometimes difficult for MHCUs to understand, especially for those who have limited abstract thinking. All other items yield CVI's of 0.93 or higher.

4.4.1.3 LIFE SKILLS

The results of the CVI for life skills are presented in Table 4.38.

TABLE 4.38: CVI FOR LIFE SKILLS

	Item level CVI	2ND Level mean item CVI	Mean item level CVI
GENERAL GUIDELINES WHEN ASSESSING THIS DOMAIN			1.0
No domain is assessed as a sole element	1.0		
SELF CARE			**0.81**
GENERAL GUIDELINES		1.0	
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		0.61	
Interview	1.0		
Activities	0.20		
24 hour pie chart or day planner	0.20		
Numbers game	0.20		
Collateral information	1.00		
Standardised assessments	0.25		
CHILD CARE			**0.81**
GENERAL GUIDELINES		0.83	
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		0.78	
Interview	0.50		
Collateral information	0.83		
Standardised assessments	1.0		
PERSONAL SAFETY			**1.0**
GENERAL GUIDELINES		1.0	
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		1.0	
Interview	1.0		
Standardised assessments	1.0		

	Item level CVI	2ND Level mean item CVI	Mean item level CVI
CARE OF MEDICATION			**0.96**
GENERAL GUIDELINES		1.0	
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		0.92	
Interview	1.0		
Activity	0.67		
Collateral information	1.0		
Standardised assessments	1.0		
DOMESTIC SKILLS		**1.0**	**1.0**
GENERAL GUIDELINES		1.0	
WHAT METHODS ARE SUITABLE FOR ASSESSMENT			
Activities	1.0		
Menu and shopping list planning	1.0		
Cooking or baking (individual / group)	1.0		
Cleaning	1.0		
Laundry	1.0		
Standardised assessments	1.0		
BUDGETING AND MONEY MANAGEMENT			**0.98**
GENERAL GUIDELINES		1.0	
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		0.95	
Interview	1.0		
Activities	0.97		
Money management devised games	1.0		
Paying by cheque and balancing your cheque book	1.0		
Using banking forms	1.0		
Budget tabulation	1.0		
Budget collages	0.83		
Grocery store simulation	1.0		
Collateral information	1.0		
Standardised assessments	0.83		

	Item level CVI	2ND Level mean item CVI	Mean item level CVI
ASSERTIVENESS			**0.67**
GENERAL GUIDELINES		0.67	
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		0.67	
Activities	0.67		
Board games	0.67		
USE OF TRANSPORT			**1.0**
GENERAL GUIDELINES		1.0	
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		1.0	
Interview	1.0		
Standardised assessments	1.0		
STRESS AND CONFLICT MANAGEMENT			**0.83**
GENERAL GUIDELINES		1.0	
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		0.67	
Interview	1.0		
Activities	0.67		
Collateral information	0.67		
Standardised assessments	0.33		
PROBLEM SOLVING			**0.94**
GENERAL GUIDELINES		1.0	
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		0.89	
Interview	0.83		
Activities	0.83		
Standardised assessments	1.0		
PRE-VOCATIONAL SKILLS			**0.94**
GENERAL GUIDELINES	1.0	0.88	
Personal presentation	0.83		
Social presentation	0.83		
Work competency	0.83		
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		1.0	
Standardised assessments	1.0		

	Item level CVI	2ND Level mean item CVI	Mean item level CVI
VOCATIONAL SKILLS			**1.0**
GENERAL GUIDELINES		1.0	
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		1.0	
Interview	1.0		
Activities	1.0		
Collateral information	1.0		
Standardised assessments	1.0		
Total mean item level CVI			**0.91**

The total mean item level CVI for Life skills was 0.91.

The mean item level CVI for self care was 0.81. All items yielded good CVI save for *activities* and *standardised assessments*. It was found that the activities (24 hour pie chart and numbers game) yielded an item level CVI of 0.20. Some experts felt that information obtained from these activities do not have a high value, and they would not use them in clinical practice. In addition to this it was also added that people often have trouble understanding these types of activities. Standardised assessments yielded an item level CVI of 0.25. This may be due to the fact that many of the experts did not have knowledge of the standardized assessments. It was also felt that functional task assessment was superior to the use of standardised assessments

The mean item level CVI for child care was 0.81. All items yielded good CVIs with the exception of the *interview* item which had a CVI of 0.50. Experts felt that the interview needed more clarity.

The mean item level CVI for use of transport, personal safety, domestic skills and vocational skills was 1.0. All items scored a CVI of 1.0.

Care of medication yielded a mean item level CVI of 0.96. Activity had a CVI of 0.67 as there were mixed feeling amongst experts on the use of this activity.

Budgeting and money management yielded a mean item level CVI of 0.98. The majority of items had a CVI of 1.0, with the exception of budget collages and

standardised assessments which had a CVI of 0.83, which is still in the acceptable range.

The mean item level CVI for assertiveness was 0.67. Both the *general guidelines* and *board games* sections scored a CVI of 0.67. Experts felt that the communication styles should be detailed and that board games were not optimally suitable.

Stress and conflict management yielded a mean item level CVI of 0.83. Activities, collateral information and standardised assessments scored a CVI of 0.67, 0.67 and 0.33 respectively. It was felt that standardised assessments required more explanation on the relevance of use for different MHCUs.

Problem solving and prevocational skills yielded a mean item level CVI of 0.94. All items scored acceptable CVIs of 0.83 or above.

4.4.1.4 ROLE PERFORMANCE AND BALANCED LIFESTYLE

The results of the CVI for role performance and balanced lifestyle are presented in Table 4.39.

TABLE 4.39: CVI FOR ROLE PERFORMANCE AND BALANCED LIFESTYLE

	Item level CVI	Mean item level CVI
GENERAL GUIDELINES TO BE AWARE OF WHEN ASSESSING THIS DOMAIN		1.0
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		0.83
Interview	0.83	
Activities	0.67	
24 hour pie chart/day planner	0.67	
Standardised assessments	1.0	
Total mean item level CVI		**0.92**

Role performance and balanced lifestyle yielded a total mean item level CVI of 0.92. The activities section had a low CVI of 0.67. Experts felt that role balance should be emphasised to a larger degree.

4.4.1.5 MOTIVATION

The results of the CVI for motivation are presented in Table 4.40.

TABLE 4.40: CVI FOR MOTIVATION

	Item level CVI	Mean item level CVI
GENERAL GUIDELINES TO BE AWARE OF WHEN ASSESSING THIS DOMAIN		1.0
A variety of activities should be used	1.0	
Look deeper than face value	1.0	
No domain is assessed as a sole element	1.0	
WHAT TO LOOK OUT FOR		1.0
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		0.75
Interview questions	1.0	
Standardised assessments	0.50	
Total mean item level CVI		**0.92**

The total mean item level CVI for motivation was 0.92. All items scored within an acceptable range for CVI save for standardised assessments which yielded a CVI of 0.50. Experts felt that the standardised assessments mentioned had only minor value in assessing motivation.

4.4.1.6 SELF ESTEEM

The results of the CVI for self esteem are presented in Table 4.41.

TABLE 4.41: CVI FOR SELF ESTEEM

	Item level CVI	Mean item level CVI
GENERAL GUIDELINES TO BE AWARE OF WHEN ASSESSING THIS DOMAIN		0.92
Self esteem is delicate	1.0	
Self esteem is constant	0.67	
Unknown group members should be chosen with caution	1.0	
No domain is assessed as a sole element	1.0	
WHAT TO LOOK OUT FOR		1.0
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		0.83
Activities	1.0	
Self awareness activities	1.0	
Coat of arms	1.0	
Self survey	1.0	
Standardised assessments	0.67	
Total mean item level CVI		**0.92**

Self esteem yield a total mean item level CVI of 0.92. The following two items had a CVI of 0.67: *self esteem is constant*, and *standardised assessments*. All other items had a CVI of 1.0. Experts felt that self esteem can at times fluctuate and that other standardised assessments can also be included.

4.4.1.7 AFFECT

The results of the CVI for affect are presented in Table 4.42.

TABLE 4.42: CVI FOR AFFECT

	Item level CVI	Mean item level CVI
GENERAL GUIDELINES TO BE AWARE OF WHEN ASSESSING THIS DOMAIN		0.94
The use of self report questionnaires	1.0	
The use of interviews	0.83	
No domain is assessed as a sole element	1.0	
WHAT TO LOOK OUT FOR		1.0
WHAT METHODS ARE SUITABLE FOR ASSESSMENT		0.89
Interview questions	1.0	
Collateral information	0.83	
Standardised assessments	0.83	
Total mean item level CVI		**0.94**

The total mean item level CVI for affect was 0.94. All items yield acceptable CVIs of 0.83 or higher.

The following table (Table 5.43) details the total mean item level CVIs for each domain and the scale-level CVI for the entire tool. Figure 4.4 represents this on a graph.

TABLE 4.43: CVI FOR DOMAINS

Process skills	1.00
Communication and social interaction	1.00
Life skills	0.91
Role performance and balanced lifestyle	0.92
Self esteem	0.92
Motivation	0.92
Affect	0.94
Scale-level CVI	**0.94**

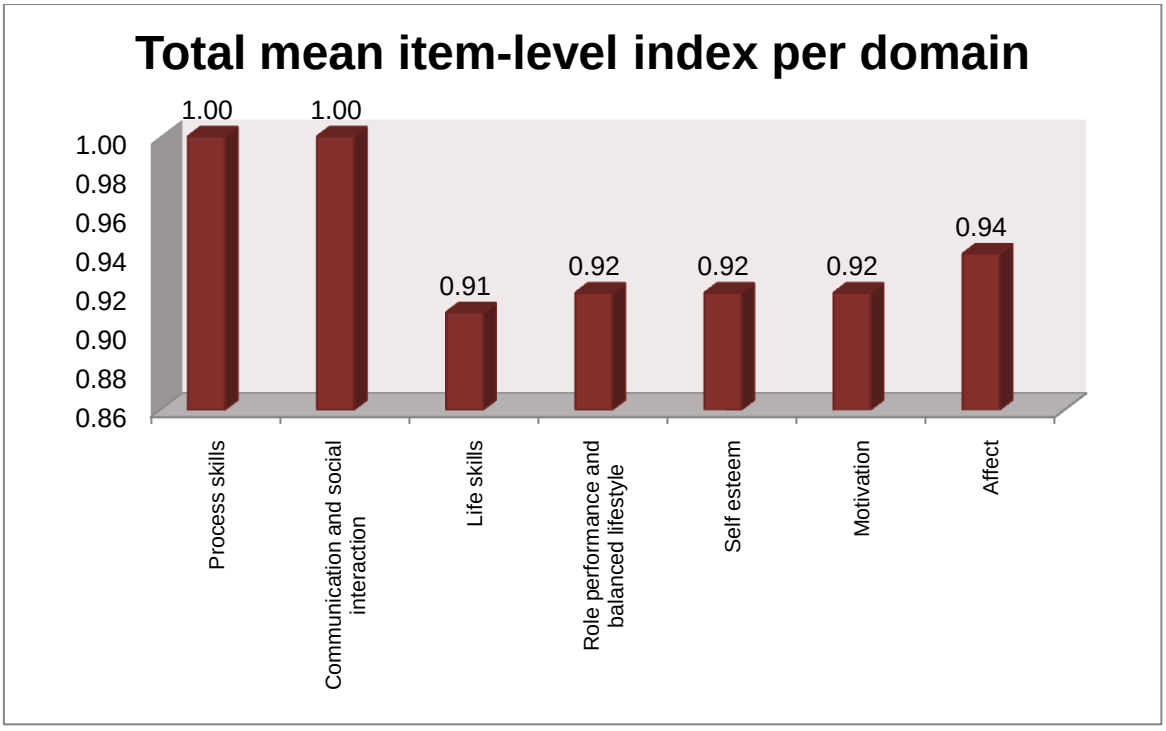


FIGURE 4.6: TOTAL MEAN ITEM LEVEL INDEX PER DOMAIN

Polit and Beck [49] agreed with Lynn [48] that when six raters were being used, a scale-level CVI, 0.80 and higher was acceptable. Rubio [47] agrees with the opinion that the CVI for new instruments should not be below 0,80.

As can be seen in Table 4.43 and Figure 4.4 above, the scale-level CVI for the Activity Participation Assessment is 0.94, which is above the recommended 0.80 for new instruments.

4.5 CONCLUSION

This chapter details results from the three phases of the research study.

In Phase 1 (Stage 1), 13 performance-based instruments were found that satisfied the review criteria of the study. These instruments were then analysed to determine which of the eight domains of the Activity Participation Outcome Measure they in fact assessed. The types of activities that were used in the performance assessments were also detailed.

In Stage 2 of Phase 1, the clinical contribution of the occupational therapy clinicians was analysed through constant comparison, followed by thematic

content analysis. For each domain the codes, categories and themes were detailed.

The result of phase three of the study was the compilation of the guidelines document for the Activity Participation Assessment. Examples of certain sections of this document can be found in Appendix H and I.

Results of phase three of the study outline the CVIs for each domain on three levels, namely: item-level index, mean item-level index, total mean item-level index and the scale-level CVI. The majority of the results of the investigation into the content validity yielded acceptable values for new instruments. This will be further discussed under the discussion in chapter five to follow.

5 DISCUSSION

5.1 INTRODUCTION

This chapter serves to highlight the comparisons and differences between different data sets found in the study. The findings from the initial literature audit are discussed as well as the controversy around the use of self report assessments. Further to this the debate around the relevance of various assessment tools in South Africa is conversed. The key issues found in each of the domains of the Activity Participation Assessment are also conferred below. The strengths and limitations of this study are included, as well as recommendations for future research.

5.2 FINDINGS FROM THE LITERATURE SEARCH

The selection criteria for the literature audit that were set out were found to have benefits, as well as limitations. The criteria had been based on the objectives of the research study, as well as based on similar criteria that were used in previous research studies [12].

The researcher intended this study to be relevant and to date with current clinical trends. Therefore a criterion was stipulated that the instrument under review should have been used or cited in research not more than ten years ago. This served its intended purpose of keeping information relevant and to date. By reviewing the literature, the researcher was exposed to many instruments that were not common knowledge to occupational therapy clinicians. During the focus groups with occupational therapy clinicians, many of the participants were taken aback by the number of performance assessments that could in fact be used in the occupational therapy process.

However, it was found that this was an extensive period of published literature to review for the researcher. This stage of the study took much longer than was initially intended by the researcher. In addition to this, by focusing only on publicised literature, there were a large number of assessment tools that were later mentioned by occupational therapy clinicians that were not included in the literature audit. For example, the Chessington Occupational Therapy Neurological

Assessment Battery, the Cognitive Assessment of Minnesota, and the Therapists Portable Skills Assessment Module. This was due to the fact that these tools may have been developed before the stipulated time period, or possibly that no research had been publicised on these tools.

5.3 THE USE OF SELF REPORT QUESTIONNAIRES – A CONTROVERSIAL DEBATE

When considering self report questionnaires, the limitations of these types of questionnaires have been outlined by various authors [12, 13, 36]. The researcher concluded from the evidence that self report questionnaires were not entirely optimal in the psychiatric field of practice. Therefore these were excluded from the literature audit.

When conducting the focus groups, it was found that occupational therapy clinicians generally followed a similar line of thinking as the authors in the various literatures. The majority of the clinicians did not think that self report questionnaires were optimal. This was apparent in the discussion around the assessment of *affect*. It was however, suggested by some of the occupational therapists to add the Hospital anxiety and depression scale and the Becks depression inventory to the list of standardised assessments that could be used to assess this domain. These were in fact two of the self report questionnaires that were initially found by the researcher, but excluded based on the selection criteria.

When considering the opinion of the clinicians, a decision was made to include these two self report questionnaires in the Activity Participation Assessment. Although self report questionnaires were in essence excluded from the study, these two questionnaires were found to be useful by clinicians. A category that was established for the *affect* domain was that *self report questionnaires can be used, but with caution*. When the *affect* domain was evaluated for content validity, it was found that the section of standardised assessments had a high item-level CVI. This supported the decision that was made to include these two questionnaires in the Activity Participation Assessment. The inclusion of these two questionnaires maintained the clinical utility of the tool.

It may have been beneficial for the researcher to bring the argumentation and findings of the literature audit to the focus groups for further comment by the clinicians. This could have made a difference in the suggestions for the performance-assessments that were included in the final assessment protocol.

5.4 OBSERVATION AS AN ASSESSMENT TECHNIQUE

There was much controversy about the term “observation”. “Observation” differed from “direct observation that was used in rating scales”. Observation skills are a key tool of practice for occupational therapists. It was often found in the focus groups that the more experienced therapists relied heavily on their observational skills and inference of the MHCUs abilities. The more inexperienced therapists preferred to involve the client in a variety of assessment methods before embarking judgment of their abilities. Although one may argue that reliable assessment involves the use of a variety of assessment methods, it was clear that the more experienced therapist’s assessment methods were more proficient and efficient. This demonstrated the difference in clinical reasoning between the categories of therapists [50]. The following characteristics as described in the literature [32] was noted: the more experienced clinicians were able to interpret information more quickly from their organised knowledge. They were easily able to provide suggestions for activities and assessment methods and were certain of their choices. The clinicians who did not demonstrate expert thinking gave suggestions for what could or may be a suitable options, giving many suggestions in case an alternative was not always suitable.

In the development of the assessment protocol it was necessary to emphasise observation as a continuous assessment principle rather than a method of assessment. Because of the wide range of expertise of clinicians in mental health care practices, the content of the Activity Participation Assessment had to cover all levels of expertise. It was made very clear in the introduction to the assessment protocol that the therapist should take note of their own assessment skills and clinical reasoning when designing an appropriate fit for the assessment methods suggested. By no means was the Activity Participation Assessment developed as a “one size fits all” approach to assessment. As with all clinical practice, it is the clinicians’ responsibility to apply clinical reasoning in their own context.

Unfortunately with the development of any standardised tool, there is the risk of the tool being used inappropriately by clinicians. This is especially so if the clinician does not have a good understanding of the constructs that the tool is based on. As in the case of the Activity Participation Assessment, the Model of Creative Ability describes the underlying beliefs and constructs for the assessment protocol. Therefore the researcher believes that although knowledge of this model is not imperative when using the Activity Participation Assessment, it is most certainly beneficial to aid the clinicians' application of the various assessment methods to different MHCUs.

5.5 THE SOUTH AFRICAN CONTEXT

All the qualifying performance-based assessments were developed outside of South Africa. In addition to this, no publications originating from South Africa included these instruments that are used in the international arena. Although there is no evidence for the reasons for this, the researcher is of the opinion that that this may indicate that either South African professionals are not aware of these instruments, do not use them, or use them but do not publicise research studies about them from a South African perspective. The researcher further believes that it is also possible that the reason these instruments are not regularly used in South Africa is that they are not entirely relevant to the typical MHCU in the South African setting. They also may not be completely suited to the types of problems the MHCUs in South Africa are experiencing. The use of these performance-based assessments and the importance of using them for specific MHCUs were highlighted in the Activity Participation Assessment.

Development of the Activity Participation Assessment will assist in creating awareness for the use of performance assessments in the field of occupational therapy.

5.6 MULTIPLE DOMAIN ASSESSMENT

Using observation during assessment is one of the key tools of practice in occupational therapy. Occupational therapists are specifically trained in the skill of observation [21]. Observation is constantly used by occupational therapists during

the assessment (and treatment) process to gather information on the MHCU. As was discussed previously, observation is a continuous process for the therapist.

It was found that the majority of the performance-based assessments that were located in the literature evaluated more than one item in each domain. In addition to this, the majority of the performance-based assessments evaluated multiple domains simultaneously. This was significant to note, as this result initially found by the researcher was later supported by clinicians' discourse during discussion groups. Clinicians highlighted the fact that occupational therapists never assess one item at a certain point in time, but rather look at a variety of elements simultaneously. A person is an integrated system of elements with all aspects influencing one another at a certain point in time [15, 20]. Occupational therapists are concerned with the integration of system and therefore it is impossible to assess one item independently of others. In addition to this, occupational therapists observe a person in a number of different activities to make judgment on their activity participation. A therapist cannot make a sound evaluation of a person's abilities after observation in a single activity. This is why a comprehensive and extensive assessment protocol was developed. Although the researcher began with the idea of focusing on "activities" for assessment only, this was actually found to be inappropriate to certain of the eight domains. Therefore throughout the stages of the research it became more apparent that a comprehensive protocol consisting of a variety of assessment methods would be much more beneficial to clinicians. Where appropriate the assessment activities were included and described in the assessment protocol.

This principle of simultaneous multiple domain assessment was included in numerous of the domains when compiling the Activity Participation Assessment guideline.

5.7 LIFE SKILLS

The life skills domain was represented most often in the performance-based assessments. This was expected, because as the name suggests – performance-based assessment – one would expect a type of performance to be measured. Life skills consist of items that are considered 'life performance' and therefore

tasks that are performed and evaluated in this domain are often more tangible than others.

Performance-based assessments commonly included activities for self care and domestic tasks. This may be because these types of activities are easy to assess in a simulated assessment environment and are familiar to the majority of people.

A similar assessment method found between instruments and occupational therapists for self care, personal safety, care of medication, use of transport, budgeting and money management, stress and conflict management, problem solving and vocational skills, was interviewing. Interviewing may have come through as a very strong method of assessment for many of the life skills as the evaluator is required to gain a thorough understanding of person's life situation and context in order to best assess their life skills.

5.7.1 SELF CARE

Although activities were found as a common assessment technique for **self care**, the types of activities differed between the instruments and occupational therapy clinicians. Instruments mentioned performing actual self care tasks, whilst occupational therapy clinicians mentioned adapted games or day planners to assess the time spent on self care. Occupational therapy clinicians placed a large emphasis on collateral information in this item assessment. This is most likely due to the setting in which most occupational therapy clinicians work, and the role the clinicians play in these psychiatric settings. An occupational therapist doing home-based therapy may have the opportunity to observe a person performing their individual self care tasks in their environment. However, in an institution, as is the case with the majority of clinicians, self care tasks are part of the nursing routine rather than the therapeutic process. Occupational therapy clinicians often do not have access to a person's self care environment as this is located in the ward. The limitation of a therapist relying on collateral information is that often the relay of information becomes distorted or because of the difference experience and context of the professionals, for example the nurses versus the occupational therapists, the actual level of performance of the skills or task cannot be evaluated effectively. This has implications for the reliability of the assessment of self care tasks.

Self care scored an acceptable mean item level CVI, however activities (the numbers game and 24 hour pie chart or day planner) and standardised assessments revealed low CVIs. It was found that there were numerous standardised assessments to assess this domain as were located in the literature. It was surprising that these standardised assessments were, however, ultimately found to be not suitable by experts. Experts felt that cultural differences play an important role in the assessment of self care, and because all of the standardised assessments had not been developed in the South African context, they were in fact not entirely suitable for use. The activities that were initially suggested by participants in the focus groups, were deemed by the experts as ineffective assessment activities for this item. The reason for this was that it was felt that these activities were difficult to understand for the majority of persons that are seen in occupational therapy. The same feeling was highlighted under the role performance and balanced lifestyle domain of activities that were similar. A decision was therefore made to remove these activities as part of the methods of assessment for the self care item in the Activity Participation Assessment.

5.7.2 CHILD CARE

Child care was not represented at all in the instruments. This item was also an item that occupational therapy clinicians had minimal contribution about as it is an area that is not often assessed by clinicians in an everyday environment. There was little discourse about child care skills in the focus groups. This may be due to the fact that therapists are often pressurised in terms of short hospital stays of their MHCUs and therefore focus on elements that may affect one's ability to care for their child, instead of the actual child care skills. Therapists also felt that this was often not initially assessed but if the problem was overt it would become obvious to the therapist at a later stage.

Limited representation in the literature as well as limited discourse by occupational therapy clinicians of the assessment of child care may be an indication of limited knowledge of this item by professionals. Alternatively, it may also indicate that evaluation of the ability to care for a child is inferred by evaluating other areas. In the community setting the assessment of childcare may be much more important. However as the Activity Participation Assessment was developed for an in-patient

psychiatric setting, the advices and experiences of the participating clinicians guided the researcher in the development of the assessment protocol.

When evaluating the CVI for child care, the item level CVI for *interview* was low. Experts felt that although this was an appropriate assessment method, the interview needed to be elaborated on and more detailed. This was changed in the Activity Participation Assessment as suggested by the experts.

5.7.3 CARE OF MEDICATION

A role-play scenario of a medication regime was included in the Activity Participation Assessment for the **care of medication**. Occupational therapy clinicians were unable to give additional activity ideas for this item. This may have been due to the fact that in an in-patient psychiatric setting, it is often difficult to assess a person's true ability to follow their medication regime as there are regular structures in place to enforce medication compliance. In addition to this, medication compliance requires insight and understanding from the MHCU. Often it is found that therapists do not in fact assess medication compliance due to the short hospital stay of the MHCU. Compliance is more likely to be assessed once the person is outside of the hospital away from enforced structure.

The response to the use of this activity as found in the literature was mixed. Some clinicians were not sure of its utility as they had not used it in practice. The majority of experts felt that this activity was in fact suitable, and it therefore remains in the Activity Participation Assessment.

5.7.4 DOMESTIC SKILLS

Activity was strongly declared as a method of assessment for **domestic skills**. Many activities from the instruments and as discussed by the occupational therapy clinicians were similar, such as laundry tasks, cleaning tasks, cooking or baking. This was also the case for budgeting and money management. These results highlight the importance of activity to assess these items.

5.7.5 ASSERTIVENESS, STRESS AND CONFLICT MANAGEMENT

Assertiveness, stress and conflict management were poorly represented, if at all in the performance-based assessments. This indicates that although these are considered as fundamental life skills by occupational therapists, as was found in Casteleijn's development of the Activity Participation Outcome Measure [11], they are seldom or not included as key factors in most performance measures.

These three items were found to be discussed with difficulty by occupational therapy clinicians. Clinicians found it difficult to establish how exactly these items were assessed. This may be linked to the fact that these items are for the most part intangible.

Assertiveness is a complex item. Occupational therapy clinicians had difficulty establishing an assessment method. Activities of board games were discussed by the clinicians; however this was not strongly felt as an appropriate assessment method by all the clinicians. This may be linked to the fact that the item-level CVI for board games under assertiveness was low. Board games were however not omitted from this section in the Activity Participation Assessment as not all the experts felt that these were completely unsuitable.

Stress and conflict management were not represented in the performance assessments. Occupational therapy clinicians recommended that this item be assessed through activities with a timed component, interviewing and collateral information. It was also suggested that the Sensory Profile, developed by Winnie Dunn [51, 52], could be used as a standardised measure for this item. During the discussion group it was found that there was little conformity about the use of activity or the standardised assessment. This was highlighted during the expert review where the item-level CVI for activity and standardised assessment were both low. Because the item-level CVI for standardised assessments was significantly low, it was decided that this would be removed as a method of assessment for this item.

5.7.6 PREVOCATIONAL AND VOCATIONAL SKILLS

Prevocational skills are made up of social presentation, personal presentation and work competency. It was strongly felt by occupational therapy clinicians that

these are all elements that can be found in other domains. For example work competency can be assessed through the assessment of process skills. Social and personal presentation can be assessed whilst assessing communication / interaction, assertiveness, stress and conflict management, and self care to name a few. There was a high CVI for the items, which concurred with the initial contribution of the clinicians in the discussion groups.

The CVI for **vocational skills** was high. This indicates that there is agreement between occupational therapy clinicians and experts in this area of assessment. The reason for this may be that when dealing with the adult population, work is a key area of concern. When one looks at the activity participation of a person, the ultimate goal is, in most cases, to have good enough integration between all systems to allow a person to work. Work forms the bulk of one's activity profile when considering the adult population. Therefore a large amount of emphasis is placed on vocational skills and therapists appear to be well equipped to assess this item.

In addition to the standardised assessments found in the literature to assess the domain of life skills, or certain items therein, the occupational therapists made additions to this group of assessments. The Therapists Portable Assessment Lab, Cognitive Assessment of Minnesota, Chessington Occupational Therapy Neurological Assessment Battery, Work Ability Screening Programme and the Sensory profile were suggested. The reason that therapists may find value in these standardised assessments is that they are practical in nature. For example the Therapists Portable Assessment Lab has twelve practical work modules such as payroll computation, pipe assembly and a circuit board. Pipe assembly and circuit board building are common tasks in the fields of plumbing or electrical work for example. These types of tasks are often performed during jobs by our MHCUs. The Work Ability Screening Programme was developed by academics and clinicians at the University of Kwa-Zulu Natal. Therefore, one can understand how therapists would find this tool relevant to the MHCUs they interact with in the clinical setting.

5.8 PROCESS SKILLS

The original finding of the researcher from the literature audit was that most instruments assessing process skills did so by the use of the activities. This was also the feeling amongst clinicians during the focus groups. It was further found in the literature audit that paper and pen activities, kitchen activities and activities whereby one has to use their hands to make an end product were used. This was in keeping with the themes of activity ideas found in the discussion groups. The researcher found much similarity between the literature and clinical assessment of this domain.

The clinicians added to the bank of standardised assessments that may be used to assess this domain. The Developmental test of visual perception – adult version, Cognitive assessment of Minnesota, Chessington occupational therapy neurological assessment battery, and the Work ability screening programme were added by therapists.

A further consideration to make is that task concept was not represented at all in the literature appraisal findings. The reason for this is that the notion of *task concept* originates from and is one of the fundamental concepts found in the Vona du Toit model of creative ability [15, 16, 20]. This is a South African based model and forms part of occupational therapy practice. The performance assessments reviewed were all from outside of South Africa. Further to this, the notion of *task concept* is abstract and therefore is complex to assess. This was found to be evident in the discussion groups with the occupational therapy clinicians. Although they seemed to have many activity ideas and an extensive knowledge on the assessment of process skills as a whole, there was limited discussion about the item of task concept. There seems to be a lack of consensus about task concept and how exactly to assess this.

De Witt conducted a study in which some suggestions for the assessment of task concept were put forward [53]. A revised conceptual framework of all components that influenced task concept was put forward. Task concept was believed to be influenced by interest, identification with the activity, understanding the influence of effort and understanding the process of the activity. Further to this, task concept also encompassed the nature of engagement which was made up of task

execution, task selection, task evaluation, task satisfaction and task completion – all which were interrelated [53].

Task concept is a multifaceted idea and is still interpreted in various ways by different therapists due to the complexities of the components. More conformity in the actual terminology and meaning of those terms may assist in the better understanding of this item. This in turn will assist therapists to be more directive in the assessment of task concept.

5.9 AFFECT AND MOTIVATION

Affect and motivation were represented the least in the performance-based assessments. This is most likely related to these domains being latent in nature. Latent characteristics are complex to assess as they are not tangible.

Interviewing was found to be the sole method of assessment for these domains in the instruments found in the literature as well as in the discussion groups. These results highlight the complexity and limited methods to assess these abstract domains.

Occupational therapy clinicians felt that there was overlap of these domains with the assessment of other domains, highlighting the already discussed aspect of multiple domain assessment.

Occupational therapy clinicians added the interest checklist as a standardised assessment to assess motivation and the Hospital anxiety and depression scale and Beck depression anxiety to assess affect. These were included in the final Activity Participation Assessment protocol where the assessments were detailed under the appropriate domains of assessment.

Half of the experts felt that the use of the interest checklist as suggested by occupational therapy clinicians was not optimally valuable in the assessment of motivation. The interest checklist was however not removed from the Activity Participation Assessment, as there was still some indication that this could be useful.

5.10 COMMUNICATION / INTERACTION

Some of the activity ideas were similar between the literature and the discussion groups – the instruments from the literature appraisal reference to group activities, whereas the occupational therapists in the discussion groups detailed teamwork activities, sporting activities and social games – all of which can be considered group activities. Role play was also similar between the two. These similarities highlighted the relevance of the activity ideas. Board games and informal activities originated from the discussion groups alone.

Physicality has a lower representation in the performance assessments when compared to the other items. Non-verbal skills are composite and have to be displayed by the person being examined through natural expressions and gestures. However information exchange and relations can be assessed quite thoroughly through engagement in interviewing and response to interview questions. This may be the reason for the difference in representation in the literature.

During the discussion groups, clinicians felt that there were no standardised assessments that could be used to assess this domain. Even from the performance-based assessments that were found by the researcher – the clinicians had no knowledge of these. It was initially decided to exclude standardised assessments from this domain. However on further consideration, the researcher decided to include these standardised assessments as a suggestion for clinicians. This decision was made based on the fact that the Activity Participation Assessment was intended to be a holistic assessment tool. In addition to this, clinical reasoning by therapists is deemed a necessary prerequisite for using the Activity Participation Assessment, as would be for any therapeutic tool. Therefore inclusion of these standardised assessments did not mean that therapists were obliged to use them, but rather that they could act as suggestions if the therapist deemed them to be suitable.

5.11 ROLE PERFORMANCE AND BALANCED LIFESTYLE

Besides the use of standardised assessments, interviewing was found as the only other assessment method in the literature for this domain. Whilst interviewing also

came forth in the discussion groups with occupational therapists, they further added the method of activities, namely the 24 hour pie chart or day planner. The addition of this activity may indicate the nature of occupational therapists versus other professionals in that occupational therapists attempt to use activities, in addition to other methods of assessment where possible.

As with self care, experts felt that the activities of the 24 hour pie chart or day planner are difficult to understand for the majority of persons that are seen in occupational therapy, therefore yielding a low CVI. The researcher considered this view of the experts and it was decided to leave the activities in the Activity Participation Assessment as an option for assessment, but to highlight the considerations and limitations one may find when using them.

The Role checklist was found as a standardised assessment in the literature [54]. This checklist was developed in the 1960's, however, is still being taught at some universities. The Role checklist can be useful, but is not appropriate to all MHCUs. With MHCUs whose insight and judgment is affected, the concept of role performance is often too abstract. In this case the use of interviewing is a better option for therapists.

In addition to the four standardised assessments already sought from the literature appraisal to assess this domain, the occupational therapy clinicians added the Activities Health assessment [55]. This assessment is a practical tool that includes an assessment of time use as well as satisfaction, comfort and social appropriateness of this use of time. It uses visual depictions and rating scales which may make this tool easier to understand than others. For those MHCUs who have difficulty with abstract thinking, this tool may make certain concepts easier for them to understand.

5.12 SELF ESTEEM

Activities were found to be a common method of assessment between the performance instruments and occupational therapy clinicians in discussion groups. However the types of activities differed – instruments suggested a task type of activity, whereas occupational therapy clinicians suggested activities involving self introspection such as a self survey. Interviewing was also found as an assessment

method in the instruments, but was not a commonly used assessment technique according to the occupational therapy clinicians. More weight was placed on data captured from occupational therapy clinicians by the researcher when compiling the activity participation assessment, as self esteem is an abstract domain to assess. It was felt that the occupational therapy clinicians had sound experience of assessment techniques that were successful and yielded the best results for assessment.

The general principle of *self esteem is constant* had a low CVI. This was because there was debate between the clinicians on the consistency of self esteem. Some therapists felt that self esteem is in fact a constant aspect, whilst other therapists felt that self esteem fluctuates depending the situation one finds themselves in. It was decided to highlight this controversy of the consistency of self esteem in the Activity Participation Assessment. This served to allow the reader to refer to the literature and then make their own clinical judgment about self esteem.

The *use of feedback* in the self esteem domain was not represented at all in the performance measures. This may be due to the fact that *using feedback* is an ongoing and abstract learning process that is often only seen after multiple interactions with a person, and cannot be rated through the use of one performance-based assessment.

5.13 THE SCALE LEVEL CONTENT VALIDITY INDEX

The scale-level CVI for the Activity Participation Assessment was extremely high. This result is in keeping with the suggested level in various literatures for the ratings of new measures [47-49]. This means that the content of the Activity Participation Assessment is deemed to be valid. The Activity Participation Assessment can then be used in clinical practice by occupational therapists; however it would be necessary to investigate other properties of the tool in the future.

5.14 CLINICAL CONTRIBUTION

The settings that the occupational therapy clinicians came from were representative of the South African health care facilities. The expertise and knowledge gained from the therapists in the discussion groups were therefore

reflective of the general population of MHCUs that are seen by the occupational therapists.

For the most part, the researcher gained experience and opinion of relatively experienced clinicians. In the focus groups the range of years of experience ranged from three to 27 years. The majority of the clinicians worked in government hospitals. This on the one hand limited the contribution of the clinicians, however also had it distinct advantages. The clinicians' contribution in the focus groups was limited due to the fact that many of them worked with similar diagnoses, resources and time constraints. This did mean that the majority of assessment methods and activities were similar between the therapists. In addition to this, the assessment activity ideas given were usually of a basic nature due to the nature of the MHCUs that they were most often in contact with. The more experienced therapist did however demonstrate forward thinking and more advanced assessment methods and activity ideas [50]. The advantages of having therapists from a homogeneous setting meant that their knowledge and expertise for that specific setting were reliable and practical. It is too often found that therapists contrive various ideas, whether it be for assessment or therapy purposes, that are expensive, impractical and unsustainable. Note was made of the above mentioned in the compilation of the Activity Participation Assessment. The introduction to the assessment protocol clearly describes the research context of the protocol.

The use of standardised assessments was occasionally initiated by the group, however for certain domains such as communication / interaction and self esteem the occupational therapists were prompted to comment on the use of standardised assessments. It was interesting to note that often the occupational therapists had little knowledge of the performance-based assessments that had been located in the literature. Occupational therapy clinicians often indicated that they had heard of the instrument but had not actually used it or were not aware of the content. For all the domains, save for the two aforementioned, the clinicians added to the list of standardised assessments that could be used to assess the domains. This indicates that there were multiple performance-based assessments that were used by clinicians that had not been located by the researcher. This may be due to the reasons mentioned previously.

5.15 EXTENSIVE DATA COLLECTION

The researcher was faced with a huge challenge when embarking on this research study. There seemed to be huge amounts of information both in the literature and from clinicians that needed to be considered. As the research progressed it became apparent to the researcher that a top-down and bottom-up approach to investigating the various data was used. The researcher used constant comparison as a way of keeping up with the compounding information from the literature and discussion groups. It was extremely difficult for the researcher to systematically organise data due to the extensive amount of different data sources and quantity of data. If one is to refer to Table 4.6 (Example of constant comparison for the communication / interaction domain) and Appendix G, it can be seen that the comparison of data was a chaotic course of action. There was an enormous amount of raw data in the study which the researcher had to arrange. The researcher had to approach data in a methodical and efficient manner in order to draw from all sources of data without losing pieces of information through the progression of the study. Therefore constant comparison was initially employed and then thematic content analysis was performed in order to re-analyse the data to make certain that no information was omitted.

5.16 EVALUATION OF THE STUDY

The study will be evaluated in terms of the strengths, limitations, as well recommendation for further research.

5.16.1 STRENGTHS

This research study followed a qualitative and quantitative design. This allowed the researcher to evaluate qualitative aspects of the study; and also perform a quantitative investigation to validate the qualitative findings from previous phases of the study.

Occupational therapy clinicians and experts were invited to participate in the study. An extensive amount of rich data was collected through the discussions of clinicians working in the psychiatric field. This served to ensure the clinical utility and practicality in the development of the Activity Participation Assessment.

The researcher used carefully planned and systematically organisational methods to ensure that no data from various sources was lost through the process of the study. This meant that comprehensiveness was ensured in the development of the Activity Participation Assessment.

The Activity Participation Assessment has been developed, based on an already existing outcome measure. This research has therefore built on other research in the occupational therapy profession and is meant to augment existing strategies in outcome measurement which is a much needed in occupational therapy.

The Activity Participation Assessment could serve as a useful tool for undergraduate teaching, as it is practical, illustrative and explanatory. Further to this newly appointed therapists may find it helpful in directing them to practical, as well as valid assessment methods. For those who are familiar with the Activity Participation Outcome Measure, the Activity Participation Assessment will serve as a complimentary tool for the assessment of activity participation that can be measured using the already familiar outcome measure.

Lastly, the Activity Participation Assessment could be used as a guideline for psychiatric occupational therapy departments in establishing resources that are required for assessment activities. This could assist, especially in departments where there are budgetary constraints, to establish the minimum materials and equipment required.

5.16.2 LIMITATIONS OF THE STUDY AND RECOMMENDATIONS FOR FUTURE RESEARCH

With the variety of assessment methods available, the extensive literature search and the need for a valid and comprehensive assessment, the intensity of this type of research study is far beyond the expectations for a sole researcher to carry out. If a research similar to this were to be conducted in the future it is suggested that

there at least be a co-researcher to assist in the expansive and exhaustive research process.

A number of activities and table games have been suggested and were included in the Activity Participation Assessment where deemed appropriate. The examples of these activity instructions found in the Activity Participation Assessment have not been standardised. The purpose of this research did not include the standardisation of the activity instructions and examples. Further studies could attempt to standardise these examples and instructions that form part of the Activity Participation Assessment.

It was exceptionally difficult to find occupational therapy clinicians and experts to participate in the study. The suggestions as described in the literature [32] to distinguish those expert thinkers assisted the researcher in defining these clinicians rather than relying solely on years of experience as a criteria. Because the population of occupational therapists working or specialising in the field of psychiatry is small, it was necessary for the researcher to source these therapists individually. Although the minimum requirements were met for evaluation of the content validity, a larger number of evaluators, as well as a more expansive group may have yielded a more comprehensive content validity investigation. Further investigation into the content validity of the Activity Participation Assessment can be performed in future research studies.

A pilot study was not included in the research study, and in hindsight did not impact on the results of this study. However in terms of following rigorous research procedures a pilot study is an important step in the research proves. This could have been included in this study to make the research study more scrupulous.

Other properties of this tool could be further investigated. Because this research study was the first step towards the development of an assessment of activity participation for the occupational therapy context in South Africa, there were time and manpower constraints to investigating all of the properties of the tool. For the purpose of this research study, the investigation was limited to content validity.

Further investigation into other reliability and validity measures could be conducted in the future.

6 CONCLUDING THE STUDY

The aim of the study was to compile an assessment protocol comprising of suitable methods of assessment, which can be used to assess activity participation in those suffering from mental illness

In order to reach that aim, three objectives for the study were defined.

Firstly it was necessary to determine appropriate assessment methods for each of the eight domains of the Activity Participation Assessment. The researcher conducted two methods of research as suggested by the authors Polit and Beck [41]. The first method was an extensive literature audit that was conducted. This resulted in the screening of 13 performance-based assessments. The various activities that were sought from these assessments were pooled by the researcher into the eight assessment domains. The second method of assessment was to conduct a qualitative enquiry by way of focus groups with occupational therapy clinicians and experts. The data collected from the focus groups was rich and extensive. The enormous amount of data that was collected in this part of the research study had to be systematically and thoroughly organised by the researcher. Due to the large amount of data, two types of data analysis emerged. Constant comparison of data, as well as thematic content analysis was performed by the researcher. The use of two analysis methods allowed the researcher to thoroughly arrange data, without neglecting essential information.

Four assessment methods emerged from analysis of the data. These were interviewing, activities, collateral information and standardised assessments. Clinicians shared indispensable information about practical and appropriate activities that can be used for assessment of the eight domains.

Secondly it was necessary to compile the protocol which was named the Activity Participation Assessment. This protocol was compiled by the researcher based on the data that was collected from the literature and the focus groups. There was extensive data to be included in this document. The document was structured in a methodical and user friendly way to ensure practicality for clinicians. This working document, of the Activity Participation Assessment, was used for the experts to rate the tool.

Thirdly it was decided by the researcher to investigate the content validity of the Activity Participation Assessment. It was suggested in the works of Polit and Beck that emphasis should be placed on the content when developing a new tool [41]. Expert review had been suggested by numerous authors and was therefore chosen by the researcher as the method of determining the content validity of the Activity Participation Assessment [41, 46, 47]. The investigation into the content validity yielded excellent results. There were minor changes that were made by the researcher to certain items in the Activity Participation Assessment; however all of the domains were rated as having a CVI of at least 0.80 or higher. The overall (scale-level) CVI yielded a value of 0.94, which is extremely high.

A high CVI indicates that the content of the tool is in fact valid. This means that the Activity Participation can be used in clinical practice.

Through exhaustive techniques and analysis, the researcher's aim and objectives were met. An assessment protocol comprising of suitable methods of assessment, that can be used to assess activity participation in those suffering from mental illness was developed.

Occupational therapists will now be able to have a reference for a starting point of assessment and guidelines for the initiation of the occupational therapy process. It is envisaged by the researcher that this assessment tool will be of significant benefit to occupational therapists. The assessment protocol that was developed in the form of a hard copy is currently being adapted to an electronic form so that the use of the assessment protocol is more efficient for occupational therapy clinicians.

It is envisaged by the researcher that this assessment protocol will evolve and be adapted as more clinicians make use of the protocol.

The Activity Participation Assessment was designed for hand in hand use with the Activity Participation Outcome Measure so that clinicians have an assessment protocol that matches the domains of the Activity Participation Outcome Measure. However the Activity Participation Assessment was also designed to be used as a standalone assessment protocol.

The background to this research highlighted the need for improvement in the quality of service provision in South Africa. In the future, routine use of this assessment, in addition to outcome measures, in occupational therapy departments will aid in the reduction of variation of services. This will ultimately have a positive influence on the quality of health care provided in South Africa.

"As occupational therapists, we explore the inner world of chaos alongside MHCUs who suffer from mental illness. Their limitations and abilities will ultimately influence how these MHCUs contest the world. In amongst this pandemonium, your thoughts are ever entwined around unraveling the MHCUs underlying ability to in fact contest the world. Although the answer to this has not been effortlessly gained, a tool to assist the therapist to untangle and systematically depict what the MHCU can and cannot do is now within ones grasp." (The author's realisation, 2011)

APPENDICES

APPENDIX A

Theoretical review of the Vona du Toit Model of Creative Ability

In order for the reader to understand the concepts that underpin the Activity Participation Assessment, and the Activity Participation Outcome Measure, it is necessary to briefly outline the key elements of Vona du Toit's Model of Creative Ability [15, 16]. A concise overview of the model is outlined below.

Background to Vona du Toit's model of Creative Ability

The Model of Creative Ability, developed by Vona du Toit and her students, is a widely used theoretical model in South Africa. Recently the model has also spread to the United Kingdom and Japan. This model provides a framework on which activity participation areas (personal, work, social and leisure) can be evaluated.

Vona du Toit developed the Model of Creative Ability based on the philosophy of occupational therapy. In de Witt, her thinking was also influenced by the work of Buber, Rogers and Piaget [16]. De Witt and Van Der Reyden in Casteleijn and Smit [20] highlight the founding ideas of this model in their recent work. In de Witt, Du Toit believed that the quality of human participation in activities influences the meaning of life [16]. Vona du Toit, in du Plessis further believed that there were progressive stages of psychical development in humans [15], which were defined as levels of motivation. Each level of motivation was associated with a level of action. There are nine interdependent levels of motivation with corresponding levels of action. These levels of motivation lie along a continuum; however it is possible to have a forward as well as backward flow between these levels. A person moves from one level to the next through exploration, participation and mastery into the therapist directed phase, patient directed phase and then the transitional phase which leads to the next level [20].

The fundamental concepts of this model as follows [16, 20]:

- **Creative capacity** as the maximal creative potential an individual has.
- **Creative response** is defined as the preparedness to use resources to participate and the positive attitude towards participation.

- **Creative participation** is the process of being actively involved in activities of daily living.
- **Creative act** is the tangible or intangible end result of creative response and creative participation.

Finally, **creative ability** as defined as the ability to present oneself, freely, without anxiety, limitations and inhibitions. It is also being prepared to function at one's maximal level of competence and being free from self consciousness.

Creative ability is the portion of creative capacity that an individual is able to evidently use to function in the role of life. The term "activity participation" describes creative ability in a more tangible way, as participation in life activities (roles, responsibilities, tasks and the like) is the expression of the term creative ability. Therefore it is concluded that when evaluating a person's creative ability, one is in fact evaluating activity participation.

Creative capacity and ability are not fixed at a certain level throughout the lifespan [15]. Capacity and ability may grow or lessen depending on life circumstances. This is what occurs in the case where a person's activity participation ions restricted by illness. Because of the pathology and illness, a person's interaction with himself and the surroundings is affected; or his or "activity participation" is altered. This means that because the person's activity participation ability decreases the expanse between creative ability and creative capacity increases, leaving the creative potential gap larger than usual in the person's integrated system. Occupational therapists are interested in the extent to which a person's activity participation has been affected so that they can utilise creative potential to move closer to the individual's creative capacity.

In addition to the fundamental concepts outlined above, an essential element of this model is the one of *volition*. Du Toit in De Witt [16] described volition as being made up of two intrinsically linked components, namely *motivation* and *action*.

- ***Motivation*** is defined as an innate urge to explore and master the environment through occupation.

- ***Action*** defined as the exertion of motivation into mental and physical effort, which results in occupational behaviour and the creation of an end product that is the outcome of doing.

Du Toit, in de Witt, believed that volition developed sequentially and thus described nine levels of motivation with corresponding levels of action in her model [16].

The levels of motivation and action are described in Table 3.1.

The levels of motivation and action each have their own defining characteristics which can be further explored in the works of Du Toit, in du Plessis [15], De Witt [16] and Van Der Reyden in Casteleijn and Smit [20, 56].

LEVEL OF MOTIVATION	LEVEL OF ACTION
Tone	Pre destructive
Self -differentiation	Destructive Incidental constructive action
Self presentation	Explorative
Passive participation	Experimental
Imitative participation	Imitative
Active participation	Original
Competitive participation	Product centered
Contribution	Situation centered
Competitive contribution	Society centered

Although not a published document, the *Levels of Creative Ability: clinical picture and treatment principles – a quick reference guide,* was postulated by Van Der Reyden and adapted by Sherwood [56]. A short outline of the first five levels as described in this document is detailed below. Levels one to five are detailed in the below as these are the most commonly seen levels by occupational therapists practicing in mental health care settings.

Level one: Tone

- No awareness of the environment
- No response to stimulation from the environment
- There may be an inconsistent response to physical stimuli
- Eating may have to be assisted
- May walk around but with no planned action
- There may be bizarre interactions with the environment

Level two: Self differentiation

- Volition is directed towards differentiating self from others and the environment.
- Action is initially destructive (minimal awareness of effect of interaction with environment) and later becomes incidentally constructive (effect of action is by chance).
- There may be inappropriate use of objects.
- Social awareness is inconsistent and behavior is egocentric.
- There is limited ability to adapt to different situations.
- There is no evidence of task concept.
- Emotional responses are basic.
- There is no indication of self initiative.
- There is no norm awareness.
- Communication can be poor.
- Thinking is concrete in nature.
- Quality of task performance is poor.
- There is poor use of time.
- Still developing awareness of body functions. Self care is poor.
- No work habits are evident.
- No survival skills are evident.

Level three: Self presentation

- Volition is directed towards presenting self to others.
- Action is explorative.

- Awareness of others has developed, although response to others is not always appropriate.
- Starts to develop a sense of handling different situations.
- Task concept is partial.
- Initiative is slight and effort is not sustained.
- Norm awareness develops, but there is still no norm compliance.
- Product is poor and he requires supervision.
- There is a high level of anxiety in unfamiliar situations.
- Self care is good with supervision.
- Survival skills are poor, but can be considered under close supervision.
- No work habits.
- Acts as a spectator to productive leisure activities.

Level four: Passive participation

- Volition is directed towards participation, however still require external motivation.
- Action is experimental and aimed at producing an end product.
- Appropriate tool and material handling present.
- Can interact socially but is still usually the follower.
- Is able to manage different situations, although still has limited skill.
- Anxiety levels are still high in unfamiliar situations and in the case of failure.
- Initiative is erratic.
- Norm awareness in behavior, appearance and tasks.
- Needs support to sustain effort.
- A fair product can be produced. There is also an emergence of evaluation of the product.
- Self care is good.
- Fair work habits. Can work in a sheltered environment.
- Will participate in organised leisure activities.

Level five: Imitative participation

- Volition is directed towards being a part of something.
- Action is product centred.
- Uses materials and tools appropriately.

- Attempt is made to comply with social norms and form reciprocal relationships.
- Can evaluate different situations.
- Task concept is constant.
- Range of emotions is evident. Anxiety is till high in unfamiliar and demanding situations.
- Initiative is sporadic.
- Norm compliance is evident.
- Product is evaluated well.
- Self care is good.
- Basic work habits are evident.
- Participates freely in leisure activities.

Although Vona du Toit's Model of Creative Ability has not been widely researched [16], through clinical practice it is found to be an essential model in the assessment and treatment of persons suffering from mental illness. The levels of motivation and action clearly characterise the activity participation deficits experienced by those affected by a variety of psychopathologies. Some of the advantages of using the Model of Creative Ability include the fact that the model allows one to establish a specific level of performance in each of the life spheres. The specific level directs the occupational therapists to design the "just right challenge" for the MHCU in the intervention programme. The model also provides a framework on which one can carefully note the small increments of change in performance as the levels are particularly detailed.

Vona du Toit's Model of Creative Ability is best described as a formulation of an integrated system of elements that at any point in time are acting on one another, which in turn generates an interaction of man, the self and the surroundings [15]. This interaction of man, the self and the surroundings is in essence the "activity participation" that is at the heart of the occupational therapy process.

Casteleijn has recently developed an outcome measure based on the levels of creative ability as postulated in Vona du Toit's Model of Creative Ability, known as the Activity Participation Outcome Measure [11]. This tool has been subjected to psychometric investigation which revealed good content and construct validity as

well as internal consistency, inter- and intrarater reliability [11]. The measure is derived from Du Toit's constructs and developmental sequence in the Model of Creative Ability, and provides a holistic representation of the components that make up activity participation in life roles. The rating scale is directly based on the levels of motivation as described in Vona du Toit's model. The components, or domains, the term used by Casteleijn – are meaningful and appropriate for the South African context as she used input from occupational therapy clinicians, as well as MHCUs when developing the measure. This means that domains contained in the measure are decidedly relevant for use by occupational therapists in the mental health care setting. Each specified domain constitutes a number of items that identify elements that are to be assessed. There are eight domains with corresponding items.

The Activity Participation Outcome Measure will be explored in more detail through the research study.

Criticism to Vona du Toit's model of Creative Ability

Vona Du Toit's Model of Creative Ability does however, not fall short of criticism.

Despite the fact that this model is used in South Africa, and more recently further abroad, there is paucity in research that has evaluated its reliability and validity.

Vona du Toit's Model of Creative Ability is also found to be a complex model to understand. The model cannot be optimally used in practice, unless one has a thorough understanding of the workings of the model. This is usually done through training. Of the eight training centres for occupational therapy in South Africa, five of these teach this model. These are Medunsa, University of Pretoria, University of the Witwatersrand, University of the Free State, and University of Kwa-Zulu Natal.

Du Toit has outlined principles for assessment in her Model of Creative Ability [16], however it is difficult for clinicians to determine what specific activities can be used in the assessment process. Through the researcher's personal experiences and contact with many different therapists in the psychiatric field, it was often noted that there is difficulty with the assessment of the levels of Creative Ability. Clinicians have highlighted the need for a more detailed guideline for the assessment of the levels of Creative Ability.

By considering the recent development of the Activity Participation Outcome Measure by Casteleijn, an effort has been made to use the Vona Du Toit Model of Creative Ability as a theoretical basis for the development of a measure that clearly defines activity participation, which can postulate activity participation and also performance in daily activities. From review of the literature it is apparent that there is a need for valid and reliable assessments in the psychiatric field to be established [14, 21]. This combined with the use of the Vona du Toit Model of Creative Ability will form the basis of this research study, as an attempt will be made to develop an assessment of activity participation by using the constructs already designed and researched by Casteleijn.

APPENDIX B

EXAMPLE OF A DESCRIPTION RESPONSE FORM FOR PROCESS SKILLS

DESCRIPTION RESPONSE FORM

PROCESS SKILLS

DESCRIPTION OF ENTRY	1	2	3	4	ADDITIONAL COMMENTS
	Not at all relevant and applicable	Minimally relevant and applicable	Adequately relevant and applicable	Good relevance and applicability	
PROCESS SKILLS					
GENERAL GUIDELINES TO BE AWARE OF WHEN ASSESSING THIS DOMAIN					
Activity use is important					
Both a familiar and an unfamiliar activity should be used					
Complex and simple					
Structured and unstructured					
No domain is assessed as a sole element					
GENERAL ACTIVITY REQUIREMENTS					
WHAT TO LOOK OUT FOR					
WHAT METHODS ARE SUITABLE FOR ASSESSMENT					
Activities					
Paper and pen activities					
Arts and crafts					
Kitchen activities					
Standardised assessments					

OTHER COMMENTS:

_____

_____

_____

_____

ETHICS PERMISSION

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Ms Catherine May Rice

CLEARANCE CERTIFICATE	**M090527**
PROJECT	Activity Participation Assessement (APA): The Development of a Valid and Reliable Assessment of Activity Particpation of Those Suffering from Mental Illness
INVESTIGATORS	Ms Catherine May Rice.
DEPARTMENT	Department of Occupational Therapy
DATE CONSIDERED	09.05.29
DECISION OF THE COMMITTEE*	Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 09.08.07 **CHAIRPERSON** .....
(Professor PE Cleaton-Jones)

*Guidelines for written 'informed consent' attached where applicable

cc: Supervisor : D Casteleijn

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...

PARTICIPANT CONSENT FORMS

Focus groups

Good day,

I am Catherine Rice, an MSc(OT) student, from the University of the Witwatersrand, Occupational Therapy Department. I am also employed as a permanent occupational therapist at Sterkfontein Psychiatric Hospital. I am currently embarking on a research study to develop an assessment tool for use by occupational therapists working in psychiatric care units. I would like to invite you to take part in this research study.

Why am I doing this? Research suggests that there are limited assessment tools for use in psychiatric settings. In occupational therapy we are concerned with how well people carry out their everyday tasks, or, how well people are functioning on a daily basis. The assessment tool that is to be developed in this study will aid in occupational therapists making an assessment of how people are functioning in their everyday lives. This research study is related to the current study of Daleen Casteleijn in which she is developing an outcomes measure based on Du Toit's Model of Creative Participation (or otherwise known as the Model of Creative Ability). You may be aware of this research study.

What do we expect from the participants in the study? Participants in the study are invited to take part in one activity analysis based focus group. Participants have been invited to participate as they have been identified by the researcher to have knowledge into Du Toit's Model of Creative Participation. The focus group will be in the form of an interview like discussion where five participants will form the focus group. Discussion will surround the topic of activities occupational therapists are using to assess the functioning of those suffering from mental illness. The discussion process will be guided by the researcher. Audio recordings of the focus groups will be taken to aid and enhance the analysis process in the research study. The focus group will take approximately one to two hours.

May I withdraw from the study? Certainly, you may do this at any time without having to give a reason. The study is completely voluntary and not taking part in it, or withdrawing from it, carries no penalty of any sort.

What about confidentiality? Confidentiality will be maintained by ensuring that once the research study is complete the audio recordings will be destroyed. No personal information will be conveyed via the audio recording. A pseudo name will replace your name if reference is made to you during the analysis of the focus groups.

May I request feedback on the outcome of this research? Feedback on the outcome of this study will be given to you if you so request it.

If you have any queries, more information may be obtained by contacting me at telephone number (011) 951 – 8292 during office hours, or on 083 293 7152 after hours.
If you are happy to participate in this research study, please would you kindly read and sign the attached consent forms.

Thank you
Catherine Rice

Expert meeting

Good day,

I am Catherine Rice, an MSc(OT) student, from the University of the Witwatersrand, Occupational Therapy Department. I am currently embarking on a research study to develop an assessment tool for use by occupational therapists working in psychiatric care units. I would like to invite you to take part in this research study.

Why am I doing this? Limited assessment tools that are valid and reliable for the South African context in psychiatric settings exist. In occupational therapy we are concerned with how well people carry out their everyday tasks, or, how well people are functioning on a daily basis. The assessment tool that is to be developed in this study will aid in occupational therapists making an assessment of how people are functioning in their everyday lives. This research study is related to the current study of Daleen Casteleijn in which she has developed the Activity Participation Outcome Measure (APOM) based on Du Toit's Model of Creative Participation (or otherwise known as the Model of Creative Ability). You may be aware of this research study and already be using the APOM. While the APOM is an outcome measure, this new tool will be a standardised assessment to assess the eight domains of the APOM. The assessment tool will be called the Activity Participation Assessment (APA).

What do we expect from the participant experts in the study? Participant experts in the study are invited to take part in one focus group where the guidelines document for the Activity Participation Assessment (APA) will be reviewed. The document has been compiled after input from therapists in previously run focus groups. Experts have been invited to participate as they have been identified by the researcher to have knowledge of Du Toit's Model of Creative Participation, as well as extensive experience in the psychiatric field. The focus group will be in the form of an interview like discussion where the assessment procedures outlined in the APA will be rated in terms of content by the experts. The discussion process will be guided by the researcher. Audio recordings of the focus groups may be taken to aid and enhance the analysis process in the research study. The focus group will take approximately two hours.

If you are willing to participate, however cannot attend the focus group, I can arrange an electronic response form for you to complete after you have reviewed the guidelines document.

What about confidentiality? Confidentiality will be maintained by ensuring that once the research study is complete the audio recordings will be destroyed. No personal information will be conveyed via the audio recording. A pseudo name will replace your name if reference is made to you during the analysis of the focus groups.

May I request feedback on the outcome of this research? Feedback on the outcome of this study will be given to you if you so request it.

If you have any queries, more information may be obtained by contacting me at telephone number 083 293 7152.

If you are happy to participate in this research study, as an expert reviewer, please would you indicate which date and time would be most suitable for you.

Thank you

Catherine Rice

Please complete the following 2 pages and return via email to cathy@rice.co.za or fax to (011) 955 - 4544

Participant consent Form

I agree to participate in the research study as outlined in the information sheet:

Name:_____

Signature:_____

Date :_____

Participant consent form to be Audio recorded

Audio-recording consent Form

I agree to be recorded by means of audio recording as I participate in the research study as outlined in the information sheet:

Name:_____

Signature:_____

Date :_____

OVERVIEW OF PERFORMANCE-BASED ASSESSMENTS

1. Bay Area Functional Performance Evaluation

	BaFPE (1989) Bay Area Functional Performance Evaluation **I. Task observation assessment** **II. Social interaction scale**
CITED	➢ Review of performance-based measures [12] ➢ Correlated with Wechsler Adult Intelligence Scale on a sample of 60 patients diagnosed with schizophrenia or depression. [57] ➢ Developing an abbreviated version of the Task-Oriented Assessment subsection of the BaFPE [58] ➢ Used as a measure of functional performance of patients in an old age nursing home [59] [60] ➢ Using the BaFPE to assess adolescents [61] ➢ Use of the BaFPE with eating disorders [62] ➢ Comparing the kinetic person drawing task of the BaFPE with other assessments [63] ➢ Development of the BaFPE is summarized [64] ➢ Reviewed as a performance-measure to be used for persons suffering from schizophrenia [65] ➢ Used in validity testing of the OTTOS [66] ➢ The use of standardised assessments in psychiatric occupational therapy [67] ➢ Considering cultural variations in the BaFPE [68] ➢ Two subtest of the BaFPE were compared [69] ➢ Review of entire assessment development and properties [70, 71]

DOMAINS ASSESSED		**ACTIVITIES INCLUDED**
Process Skills		
Attention	√	• Sorting shells (size, shape, colour) • Home drawing (following instructions) • Block design from memory or cue card • Kinetic person drawing
Pace		
Knowledge	√	
Skills	√ (limited)	
Task Concept		
Organizing space and objects	√	
Adaptation		
Communication/ social interaction		
Physicality - Non verbal communication	√	• One to one interview • Meal time • Unstructured group • Structured activity group • Structured oral group
Information exchange	√	
Relations	√	

DOMAINS ASSESSED		ACTIVITIES INCLUDED
Self esteem		
Commitment to task or situation		• Structured activity group
Using feedback		
Self worth		
Attitude towards self		
Awareness of qualities		
Social presence	√	

2. Kholman evaluation of living skills

	KELS (1992) Kholman Evaluation of Living Skills
CITED	• Review of performance-based measures [12] • KELS correlated with Functional independence measure and Routine task inventory in an Israeli population of 92 elderly in the community [72] • Self-neglect in geriatric populations is associated with an increased likelihood of failing the KELS assessment [73] • The KELS is an appropriate tool for use when assessing level of independence before discharge from various settings [74] • Outline and guidelines of the KELS assessment [75]

DOMAINS ASSESSED		ACTIVITIES INCLUDED
Life skills		
Personal care, hygiene, grooming	√	• Self care (self report, appearance) • Safety and Health (photographs of dangerous situations, actions for sickness and accidents, knowledge of emergency numbers and location of medical services) • Money management (purchasing items, maintaining income sources, budgeting for food, using banking forms, paying bills) • Transportation and telephone (knowledge of transit system, use of telephone book) • Work and Leisure (plans for future employment, leisure interests)
Personal safety, care of medication	√ (safety)	
Use of transport	√	
Domestic skills		
Child care skills		
Money management and budgeting skills	√	
Assertiveness		
Stress management		
Conflict management		
Problem solving skills		
Pre-vocational skills		
Vocational skills		
Role Competence		
Awareness of roles	√	• Work and Leisure (plans for future employment, leisure interests)
Role expectations		
Role balance		
Competency		

3. Independent Living scales

	ILS (1996) Independent Living Scale
CITED	• Review of performance-based measures [12] • Comparison of the ILS to the Dementia Rating scale. The ILS can be used as a comprehensive assessment for older adults [76] • ILS assessment was found to have a high correlation with the Dementia Rating scale [77] • The ILS was established as a valid method for measuring cognition in those suffering from schizophrenia [34] • Outline and guidelines devised by Loeb when using the ILS for assessment [78] • Investigation into the psychometric properties of the ILS was carried out [79]

DOMAINS ASSESSED		ACTIVITIES INCLUDED
Communication/ social interaction		
Physicality - Non verbal communication	√	• Communication • Social Adjustment (questions relating to self, others, values)
Information exchange	√	
Relations	√	
Life skills		
Personal care, hygiene, grooming	√	• Managing money (questions relating to personal finance, governmental obligations, tax, health insurance, writing a will) • Managing home and transportation (questions relating to household repairs, bus schedules and costs, telephone book usage) • Health and Safety (questions relating to calling emergency services, reasoning situations, health issues, personal care
Personal safety, care of medication	√	
Use of transport	√	
Domestic skills		
Child care skills		
Money management and budgeting skills	√	
Assertiveness	√	
Stress management		
Conflict management		
Problem solving skills	√	
Pre-vocational skills		
Vocational skills		
Self esteem		Social Adjustment (questions relating to self, others, values)
Commitment to task or situation		
Using feedback		
Self worth	√	
Attitude towards self	√	
Awareness of qualities		
Social presence		

4. Personal and social performance scale

	PSP Scale Personal and Social Performance Scale
CITED	• Psychometric properties of the PSP Scale were investigated in schizophrenic persons living in the community in the USA [80] • Psychometric properties of the PSP Scale were investigated in out-patient schizophrenic patients [81] • Reliability and validity of the Spanish version of the PSP was investigated [82] • Investigation into the inter-rater reliability of the Thai version of the PSP scale was made [83] • Measurement properties of the PSP in persons with acute symptoms of schizophrenia [84] • The PSP was suggested as a measurement of the therapeutic outcome in terms of psychosocial functioning of persons with schizophrenia [85] • The PSP scale was used as compounding measure to determine the psychometric properties of the Social Integration scale [86] • The PSP was suggested for use and further study in a literature search of English language articles published between January 1990 and December 2006 [87] • The PSP was found to be a standardised and comprehensive evaluation of functioning in study done to establish the above-mentioned criteria in an assessment [37] • Online version of the PSP Scale [35]

DOMAINS ASSESSED		**ACTIVITIES INCLUDED**
Communication/ social interaction		
Physicality - Non verbal communication		• PARTNER/SPOUSE: Do you have a partner or a spouse or a boy/girlfriend)? If Yes: Do you live together? How do you get along? Do you speak to each other? Do you have common plans? • FAMILY (different from partner): In the last <reference period> have you been in touch with any of your relatives? Sample follow-up questions: How often have you seen them? Did you get along well or did you have problems? Do they help you? Do you help them? If patient lives in a residential facility: During leave from the residence or when your relatives came to visit you, did you get along well with them? • SOCIAL RELATIONSHIPS: In the last <reference period> how often did you go out to meet other people? Sample follow-up questions: Do you like meeting and speaking with other people? Do you do things together with other people? Do other people like you? How many friends do you have? Are they patients or workers of the mental health service? Do you have somebody who can help you when you need it? If uncertain between mild and manifest: How many people have noticed that you have some difficulties in social relationships? • DISTURBING BEHAVIOR: In the last <reference period> did you behave in a way that some people may have thought rude or insensitive? Sample follow-up questions: Did you take something belonging to others without asking permission? While drunk, did you do something that could annoy others? Did you ever do something strange that other people may have found worrying? Did you speak too loudly or have your music or the TV too loud? Did you keep asking other people for money or gifts? Did you complain often about your condition? How many people have noticed that you were behaving in a disturbing way for others?
Information exchange		
Relations	√	

DOMAINS ASSESSED		ACTIVITIES INCLUDED
Life skills		
Personal care, hygiene, grooming	√	• PERSONAL HYGIENE: In the last <reference period> how often have you taken a shower or a bath? Sample follow-up questions: Did you wash alone or did somebody remind or help you? Have you cleaned your teeth every day? • CARE OF ONE'S APPEARANCE: For men without a beard: Do you shave regularly? For women: Have you used a little make-up, at least on special occasions? Have you gone to a hairdresser? • WAY OF DRESSING: In the last <reference period> did you always put on clean clothes? Sample follow-up questions: Did you ever go out in pajamas or not properly dressed? Did you ever dress in a way that people might find unusual for the period of the year or the weather? Did people ever complain that <patient's name> had a bad smell? How many people have noticed that you were not perfectly clean and rather untidy? • WORK: In the last <reference period> did you work? or STUDY: In the last <reference period> have you been to school? If Yes: Where? How many days? How many hours a day? Have you had difficulties at work (school), for instance with the other workers (students) or your manager (teachers)? Have you been on time? • SOCIALLY USEFUL ACTIVITIES: Apart from work, did you do something that other people may find useful? Follow-up questions: For instance, did you help with a household task (cleaning the house, tidying things up, cooking)? Did you help to organize something or with gardening or sewing? Have you done some volunteer work? How many people have noticed that you have had some problems at work (study)?
Personal safety, care of medication		
Use of transport		
Domestic skills	√	
Child care skills		
Money management and budgeting skills		
Assertiveness		
Stress management		
Conflict management		
Problem solving skills		
Pre-vocational skills	√	
Vocational skills	√	
Balanced Lifestyle		
Time use and routines		
Habits		
Mix of occupations	√	• WORK: have you been working, details etc? • SOCIALLY USEFUL ACTIVITIES: Besides work what else do others see you doing as useful?
Affect		
Repertoire of emotions		
Control	√	• DESTRUCTIVE AND AGGRESSIVE BEHAVIOR: In the last <reference period> did you ever lose control of your temper? Follow-up questions: Did you shout at anybody? Did you throw or destroy objects? Did you hit or hurt anybody? How severe was it? Did you really want to hurt them? How often did it happen? Do you think that is going to happen again in the near future? If uncertain between mild and manifest: How many people have noticed that you have some difficulties in self control?
Mood		

5. Performance test of activities of daily living

	PADL (1976) **Performance test of activities of daily living**
CITED	• Review of performance-based measures [12] • Explanation of assessment methods that can be used to assess senile dementia [88] • Profiling the strengths and weaknesses of physical performance measures in assessing the severity of disability and disease in Parkinson's Disease [89] • Background, rational, usefulness, and specific administration and scoring procedures of the PADL [90]

DOMAINS ASSESSED		**ACTIVITIES INCLUDED**
Life skills		
Personal care, hygiene, grooming	√	Physical ability with the use of props to: • Drink from a cup • Use a tissue • Comb hair • File nails • Shave • Feed • Turn tap on and off • Turn light switch on and off • Remove buttoned jacket • Put on and remove slippers • Brush teeth • Make a phone call • Sign name • Turn key in lock • Tell time • Walk
Personal safety, care of medication		
Use of transport		
Domestic skills	√	
Child care skills		
Money management and budgeting skills		
Assertiveness		
Stress management		
Conflict management		
Problem solving skills		
Pre-vocational skills		
Vocational skills		

6. Social skills performance assessment

	SSPA Social Skills Performance Assessment (2001)	
CITED	• The SSPA was used as a measure in a study to evaluate the reliability and validity of a performance based assessment of communication between mentally ill elderly persons and their doctors [91] • The SSPA was used as a measure of functioning in a study conducted to investigate the relationship between suicidality, function and quality of life [92] • The SSPA was used as one of the assessments of everyday functioning in a study conducted to determine the specificity of the relationship between neuropsychological abilities and performance-based measures of social and living skills [93] • In a systematic review of four randomised control trials to evaluate life skills programmes versus standard care and support groups, the SSPA was employed as an assessment of social skills [94] • Investigation of a brief social skills performance measure – the SSPA – was conducted in older patients with schizophrenia [95]	
DOMAINS ASSESSED		**ACTIVITIES INCLUDED**
Communication/ social interaction		
Physicality - Non verbal communication	√	• Role play scenarios (tenant meeting neighbour, tenant calling with complaint to landlord)
Information exchange	√	
Relations	√	

7. UCSD performance-based skills assessment

	UPSA UCSD Performance-Based Skills Assessment (2001)
CITED	• Description of the UPSA as a newly developed performance measure in everyday functioning of severely mentally ill adults [13] • The UPSA was used as one of the assessments of everyday functioning in a study conducted to determine the specificity of the relationship between neuropsychological abilities and performance-based measures of social and living skills [93] • Review of performance-based measures [12] • A study was conducted to investigate the relationship between activities of daily living, cognitive ability and independence in community living where the UPSA was used as the performance measure of ADL [96] • An abbreviated version of the UPSA along with a neuropsychological assessment were administered in order to establish the similarity of performance-based assessments of everyday functioning, real-world disability, and achievement of milestones in persons with schizophrenia living in the community [97] • The UPSA was used as an assessment of functioning in a study to determine correlations between functional ability, symptoms and neuropsychological performance [98] • The UPSA was used as a measure of functioning in a study conducted to investigate the relationship between suicidality, function and quality of life [92] • The UPSA was investigated for its specificity and sensitivity when used as an assessment to predict independent living ability of those suffering from chronic schizophrenia [99]

DOMAINS ASSESSED		**ACTIVITIES INCLUDED**
Communication/ social interaction		
Physicality - Non verbal communication		• Using telephone (Emergency number; Information; making an appointment)
Information exchange	√	
Relations		
Life skills		
Personal care, hygiene, grooming		• Cooking (rice pudding recipe) • Prepare shopping list (mock grocery store) • Finance (counting change, paying electricity bills) • Transportation (finding way to a specific place, bus schedule administration) • Planning recreational activities (role play planning exactly the process and planning of the outing)
Personal safety, care of medication		
Use of transport	√	
Domestic skills	√	
Child care skills		
Money management and budgeting skills	√	
Assertiveness		
Stress management		
Conflict management		
Problem solving skills	√	
Pre-vocational skills		
Vocational skills		

8. Performance assessment of self care skills

	PASS Performance Assessment of Self Care skills
CITED	• Review of performance-based measures [12] • The PASS was employed as an outcome measure when evaluating the utility of the decision-analysis methods when examining the post-stroke impairment-activity interactions [100] • The PASS was used as performance measure in a study conducted to make a distinction between the use of self-report versus performance based measure sin he elderly population [101] • The PASS was used in a pilot study to investigate association of brain injured regions with functional outcomes [102] • Change over time of functional ability was investigated through the use of self-report, informant report and performance based assessment – the PASS was employed as the performance assessment [103] • The PASS was used a criterion instrument against three memory tests used to predict functional ability in the elderly [104] • The PASS was used as a performance measure in a study conducted to determine task disability in older adults with depression – Rasch analysis was employed in this study [105] • A detailed synopsis of the theoretical background, administration, utilisation and statistical analysis of the PASS [106]

DOMAINS ASSESSED		**ACTIVITIES INCLUDED**
Life skills		
Personal care, hygiene, grooming	√	**Personal care:** Oral hygiene, Dressing, Trimming toenails **ADL:** Shopping, Bill paying by cheque (money management), Chequebook balancing (money management), Mailing (money management), Bending, lifting, carrying (heavy housework), Telephone use, Medication management, Changing bed linens (heavy housework), Obtaining critical information from the media (auditory), Obtaining critical information from the media (visual), Small repairs (home maintenance), Sweeping (home maintenance), Home safety (environmental awareness), Playing bingo (leisure), Oven use (meal preparation), Stove use (meal preparation), Sharp utensil use (meal preparation), Clean-up after meal preparation (light housework)
Personal safety, care of medication	√	
Use of transport		
Domestic skills	√	
Child care skills		
Money management and budgeting skills	√	
Assertiveness		
Stress management		
Conflict management		
Problem solving skills		
Pre-vocational skills		
Vocational skills		

9. Medication management ability assessment

	MMAA **Medication Management Ability Assessment (2002)**
CITED	• Review of performance-based measures [12] • Statistical analysis was done between the MMAA and a medication management assessment using virtual reality assessment [107] • The MMAA was used as a tool in a study to assess medication management skills in elderly with ranging cognitive function [108] • The MMAA was found as an instrument that can be used to assess medication management ability in a literature review carried out by searching data and articles on PubMed [109] • The MMAA was used in a study conducted to investigate the relationship of psychopathology to age and depressive symptoms [110] • In a study conducted to assess the medication management ability of bipolar individuals – the MMAA was used as the primary assessment tool [111] • The MMAA was used to index medication competence in a study conducted to predict factors that influence medication compliance in those suffering from schizophrenia [112] • In a study conducted to predict which cognitive factors influence medication adherence in those suffering from schizophrenia – the MMAA was use to assess medication management ability [113] • The MMAA was developed and used in study with a population of older patients with schizophrenia [114]

DOMAINS ASSESSED		**ACTIVITIES INCLUDED**
Life skills		
Personal care, hygiene, grooming		• A role-play task where 4 mock-prescription bottles of medication are given with directions for dosage and administration. After an hour subjects have to describe to examiner exactly how to carry out medication regimen
Personal safety, care of medication	√	
Use of transport		
Domestic skills		
Child care skills		
Money management and budgeting skills		
Assertiveness		
Stress management		
Conflict management		
Problem solving skills		
Pre-vocational skills		
Vocational skills		

10. Worker role interview

	WRI (Worker role interview) 1990
CITED	• Review of the development and administration of the WRI [115] • Description of vocational assessments used in mental health [116] • The Swedish version of the WRI was used in a study conducted to determine the strengths and difficulties relating to work experienced by people with intellectual disabilities [117] • The Icelandic version of the WRI was investigated in terms of psychometric properties. The many-faceted rasch analysis was employed that extrapolated good reliability and validity of the assessment. [118] • A study was done to investigate the psychometric properties of the WRI. Multi-faceted rasch analysis yielded validity for the scale and items across ages, diagnosis and culture. [119] • An enquiry into the predictive validity of the WRI for return to work was carried out. [120] • The WRI was used as a standardised assessment in a study conducted to investigate reporting of patients work abilities in Britain. [121] • In a study carried out to investigate barriers to return to work, the WRI was used an assessment tool to gain information from patients with regard to their return to work. [122] • Two rasch analysis and one logistic regression study were conducted to examine the validity of the WRI. [123] • A case example was highlighted to illustrate the clinical application of the WRI. [124] • An analysis of the WRI for reliability was carried out and good test-retest reliability was found but inter-rater reliability was poor. [125]

DOMAINS ASSESSED		ACTIVITIES INCLUDED
Life skills		
Personal care, hygiene, grooming		Structured questions (roles):- Structured questions (interests):- Structured questions (habits):- Structured questions (values):- Structured questions (personal causation):- Structured questions (environment):- - Perception of work setting, family and peers, boss and co-workers
Personal safety, care of medication		
Use of transport		
Domestic skills		
Child care skills		
Money management and budgeting skills		
Assertiveness		
Stress management		
Conflict management		
Problem solving skills		
Pre-vocational skills		
Vocational skills	√	

DOMAINS ASSESSED		ACTIVITIES INCLUDED
Role Competence		
Awareness of roles	√	Structured questions (roles):- - Identifies with being a worker - Appraises work expectations - Influence of other roles
Role expectations	√	
Role balance		
Competency	√	
Balanced Lifestyle		
Time use and routines	√	Structured questions (interests):- - Enjoys work - Pursues interests Structured questions (habits):- - Work habits - Daily routines - Adapt routine to minimise difficulties
Habits	√	
Mix of occupations	√	
Motivation		
Active involvement	√	Structured questions (values):- - Commitment to work - Work related goals Structured questions (interests):-
Motives and drives	√	
Shows interest	√	
Goal directed behaviour	√	
Locus of control	√	
Self esteem		
Commitment to task or situation	√	Structured questions (personal causation):- - Assess abilities and limitations - Expectation of success - Takes responsibility Structured questions (environment):-
Using feedback		
Self worth	√	
Attitude towards self	√	
Awareness of qualities	√	
Social presence	√	

11. Worker environment impact scale

	WEIS Worker environment impact scale	
CITED	• An description of the WEIS, including administration and dependability [115] • Rasch analysis was employed to examine construct validity of the WEIS in a cross-cultural (Swedish and American) population [126] • The WEIS was evaluated by Rasch analysis with a population of persons with psychiatric disabilities. The WEIS was found to produce "clinically relevant information useful for planning of work-related interventions or reasonable accommodations" [127]	
DOMAINS ASSESSED		**ACTIVITIES INCLUDED**
Life skills		
Personal care, hygiene, grooming		(This is an assessment of Work environment) • Time demands: Time allotted for available/expected amount of work • Task demands: the physical, cognitive and emotional demands and opportunities of work tasks • Appeal of work tasks: the appeal or value of work tasks • Work schedule: the influence of work on other values roles or activities • Co-worker interaction: interaction with co-workers required for job responsibilities • Work group membership: social environment with co-workers at work or outside work • Supervisor interaction: feedback, guidance and other interaction with supervisor • Work role standards: overall climate of work setting expressed in expectations for quality, excellence, commitment, achievement and efficiency • Work role style: opportunity for autonomy or compliance when organising, making requests, negotiating and choosing how and what work tasks will be done daily • Interaction with others: interaction with subordinates, customers, clients, audiences, students or other excluding supervisor or co-workers • Rewards: opportunities for job security, advancement in position, and compensation in salary benefits. • Sensory qualities: properties of the workplace such as noise, smell, climate, ventilation • Architecture: architect or physical arrangement of work spaces and environment • Ambience: the feeling associated with the degree of privacy, friendliness, morale, excitement, anxiety, frustration in the workplace • Properties of objects: the physical, cognitive and emotional demands of tools, equipment, materials and supplies. • Physical amenities: Non-work specific facilities necessary to meet personal needs at work such as restrooms, lunch rooms. • Meaning of objects: what objects signify to a person
Personal safety, care of medication		
Use of transport		
Domestic skills		
Child care skills		
Money management and budgeting skills		
Assertiveness		
Stress management		
Conflict management		
Problem solving skills		
Pre-vocational skills	√	
Vocational skills	√	

12. The Role checklist

	Role checklist 1986
CITED	• A description and clinical use of the role checklist was outlined [54] • The use of the role checklist was illustrated in a case example of a person diagnosed with multiple personality disorder [128] • An exploration of the link between time use and role participation on those older than 65 years was carried out. The role checklist was used as an assessment of role participation [129] • A valid Spanish version of the Role checklist was created in a research study conducted [130] • The Brazilian version of the role checklist was found to be a valid instrument for use in those suffering from chronic obstructive pulmonary disease [131] • In a study conducted to compare normal to psychosocially dysfunctional adolescents, the role checklist was as one of the assessments in a batch of assessments carried out [132] • The role checklist was used a tool when an investigation into care needs, functional outcome, role participation and community integration of those who had suffered from a traumatic brain injury was carried out [133] • The role checklist was used in the self-report format to investigate the relationship between frequency of role enactment and role value in the elderly [134] • A study conducted to investigate the occupational role careers of mothers of children with disabilities was conducted, which employed the role checklist as the assessment instrument [135] • Part two of the role checklist was employed as one of a batch of instruments used to explore the occupational nature of juvenile delinquency [136] • A description of the validation procedures for the French version of the role checklist was outlined [137] • An exploration into the occupational role career, role value and role patterns was conducted in schizophrenic population. The role checklist was employed as an assessment tool [138] • An adaptation from the role checklist was used in a study conducted to investigate the functional consequences of bipolar affective disorder [139] • The role checklist was used as one of the instruments in a study carried out to investigate the relationship between well-being and occupational roles of middle-aged women [140]

DOMAINS ASSESSED		**ACTIVITIES INCLUDED**
Role Competence		
Awareness of roles	√	Occupational role career, perceived incumbency and value designation: of being a student, worker, volunteer, caregiver, home maintainer, friend, family member, religious participant, hobbyist, participant in organisations or other.
Role expectations		
Role balance	√	
Competency		
Balanced Lifestyle		
Time use and routines		By exploring fulfilled roles
Habits		
Mix of occupations	√	

13. The AMPS

	AMPS Assessment of Motor and Process Skills
CITED	• "The relationship between the WAIS-R and the AMPS occupational therapy assessment tool in a physical rehabilitation setting…"[141]. • "Using the Assessment of Motor and Process Skills to measure functional change in adults with severe traumatic brain injury: A pilot study." [142] • "An audit evaluation into the use of the Assessment of Motor and Process Skills (AMPS) in a mental health trust" [143]. • "The Use of the Assessment of Motor and Process Skills (AMPS) in predicting need of assistance for adults with mental retardation" [144].

DOMAINS ASSESSED		**ACTIVITIES INCLUDED**
Process Skills		• Many activities to choose from *(not all included here due to space limitations)*
Attention	√	
Pace	√	
Knowledge	√	
Skills	√	
Task Concept		
Organizing space and objects	√	
Adaptation	√	
Life skills		
Personal care, hygiene, grooming	√	
Personal safety, care of medication		
Use of transport		
Domestic skills	√	
Child care skills		
Money management and budgeting skills		
Assertiveness		
Stress management		
Conflict management		
Problem solving skills		
Pre-vocational skills		
Vocational skills		

APPENDIX F

SUMMARY OF ACTIVITIES FOUND IN THE LITERATURE

DOMAINS		
PROCESS SKILLS		
Attention	BaFPE AMPS	**BaFPE** • Sorting shells (size, shape, colour) • Home drawing (following instructions) • Block design from memory or cue card • Kinetic person drawing **AMPS** **See all AMPS activities under Life skills domain*
Pace	AMPS	
Knowledge	BaFPE AMPS	
Skills	BaFPE AMPS OCAIRS	
Task Concept		
Organizing space and objects	BaFPE AMPS	
Adaptation	AMPS	
ROLE PERFORMANCE		
Awareness of roles	KELS Role checklist WRI OCAIRS	**KELS** • Work and Leisure (plans for future employment, leisure interests) **Role checklist** • Occupational role career, perceived incumbency and value designation: of being a student, worker, volunteer, caregiver, home maintainer, friend, family member, religious participant, hobbyist, participant in organisations or other. **WRI** Structured questions (roles):- - Identifies with being a worker - Appraises work expectations - Influence of other roles **OCAIRS** • Roles
Role expectations	WRI	
Role balance	Role checklist OCAIRS	
Competency	WRI	
SELF ESTEEM		
Commitment to task or situation	WRI	**BaFPE** • Structured activity group **ILS** • Social Adjustment (questions relating to self, others, values) **WRI** Structured questions (personal causation):- - Assess abilities and limitations - Expectation of success - Takes responsibility Structured questions (environment):-
Using feedback		
Self worth	ILS WRI	
Attitude towards self	ILS WRI	
Awareness of qualities	WRI	
Social presence	BaFPE WRI	

DOMAINS		
COMMUNICATION/ SOCIAL INTERACTION		
Physicality - Non verbal communication	BaFPE ILS SSPA	**BaFPE** • One to one interview • Meal time • Unstructured group • Structured activity group • Structured oral group **ILS** • Communication • Social Adjustment (questions relating to self, others, values) **PSP Scale** • PARTNER/SPOUSE: Do you have a partner or a spouse or a boy/girlfriend)? If Yes: Do you live together? How do you get along? Do you speak to each other? Do you have common plans? • FAMILY (different from partner): In the last <reference period> have you been in touch with any of your relatives? Sample follow-up questions: How often have you seen them? Did you get along well or did you have problems? Do they help you? Do you help them? If patient lives in a residential facility: During leave from the residence or when your relatives came to visit you, did you get along well with them? • SOCIAL RELATIONSHIPS: In the last <reference period> how often did you go out to meet other people? Sample follow-up questions: Do you like meeting and speaking with other people? Do you do things together with other people? Do other people like you? How many friends do you have? Are they patients or workers of the mental health service? Do you have somebody who can help you when you need it? If uncertain between mild and manifest: How many people have noticed that you have some difficulties in social relationships? • DISTURBING BEHAVIOR: In the last <reference period> did you behave in a way that some people may have thought rude or insensitive? Sample follow-up questions: Did you take something belonging to others without asking permission? While drunk, did you do something that could annoy others? Did you ever do something strange that other people may have found worrying? Did you speak too loudly or have your music or the TV too loud? Did you keep asking other people for money or gifts? Did you complain often about your condition? How many people have noticed that you were behaving in a disturbing way for others? **SSPA** • Role play scenarios (tenant meeting neighbour, tenant calling with complaint to landlord) **UPSA** • Using telephone (Emergency number; Information; making an appointment)
Information exchange	BaFPE ILS SSPA UPSA	
Relations	BaFPE ILS PSP Scale SSPA	

DOMAINS		
LIFE SKILLS		
Personal care, hygiene, grooming	ILS KELS PADL PASS PSP Scale AMPS	**ILS** • Managing money (questions relating to personal finance, governmental obligations, tax, health insurance, writing a will) • Managing home and transportation (questions relating to household repairs, bus schedules and costs, telephone book usage) • Health and Safety (questions relating to calling emergency services, reasoning situations, health issues, personal care **KELS** • Self care (self report, appearance) • Safety and Health (photographs of dangerous situations, actions for sickness and accidents, knowledge of emergency numbers and location of medical services) • Money management (purchasing items, maintaining income sources, budgeting for food, using banking forms, paying bills) • Transportation and telephone (knowledge of transit system, use of telephone book) • Work and Leisure (plans for future employment, leisure interests) **MMAA** • A role-play task where 4 mock-prescription bottles of medication are given with directions for dosage and administration. After an hour subjects have to describe to examiner exactly how to carry out medication regimen **OTAPS** • Safety (14 items) • Medication administration (10 items) • Meal planning (7 items) • Money management (11 items) **PADL** Physical ability with the use of props to: • Drink from a cup • Use a tissue • Comb hair • File nails • Shave • Feed • Turn tap on and off • Turn light switch on and off • Remove buttoned jacket • Put on and remove slippers • Brush teeth • Make a phone call
Personal safety, care of medication	ILS KELS MMAA OTAPS PASS	
Use of transport	ILS KELS UPSA	
Domestic skills	OTAPS PADL PASS PSP Scale UPSA AMPS	
Child care skills		
Money management and budgeting skills	ILS KELS OTAPS PASS UPSA	
Assertiveness	ILS	
Stress management		
Conflict management		
Problem solving skills	ILS UPSA	
Pre-vocational skills	PSP Scale	

	WEIS	• Sign name • Turn key in lock • Tell time • Walk
Vocational skills	PSP Scale WEIS WRI	**PASS** **Personal care:** Oral hygiene, Dressing, Trimming toenails **ADL:** Shopping, Bill paying by cheque (money management), Chequebook balancing (money management), Mailing (money management), Bending, lifting, carrying (heavy housework), Telephone use, Medication management, Changing bed linens (heavy housework), Obtaining critical information from the media (auditory), Obtaining critical information from the media (visual), Small repairs (home maintenance), Sweeping (home maintenance), Home safety (environmental awareness), Playing bingo (leisure), Oven use (meal preparation), Stove use (meal preparation), Sharp utensil use (meal preparation), Clean-up after meal preparation (light housework) **PSP Scale** 1. PERSONAL HYGIENE: In the last <reference period> how often have you taken a shower or a bath? Sample follow-up questions: Did you wash alone or did somebody remind or help you? Have you cleaned your teeth every day? 2. CARE OF ONE'S APPEARANCE: For men without a beard: Do you shave regularly? For women: Have you used a little make-up, at least on special occasions? Have you gone to a hairdresser? 3. WAY OF DRESSING: In the last <reference period> did you always put on clean clothes? Sample follow-up questions: Did you ever go out in pajamas or not properly dressed? Did you ever dress in a way that people might find unusual for the period of the year or the weather? Did people ever complain that <patient's name> had a bad smell? How many people have noticed that you were not perfectly clean and rather untidy? • WORK: In the last <reference period> did you work? or STUDY: In the last <reference period> have you been to school? If Yes: Where? How many days? How many hours a day? Have you had difficulties at work (school), for instance with the other workers (students) or your manager (teachers)? Have you been on time? • SOCIALLY USEFUL ACTIVITIES: Apart from work, did you do something that other people may find useful? Follow-up questions: For instance, did you help with a household task (cleaning the house, tidying things up, cooking)? Did you help to organize something or with gardening or sewing? Have you done some volunteer work? How many people have noticed that you have had some problems at work (study)?

		UPSA • Cooking (rice pudding recipe) • Prepare shopping list (mock grocery store) • Finance (counting change, paying electricity bills) • Transportation (finding way to a specific place, bus schedule administration) • Planning recreational activities (role play planning exactly the process and planning of the outing) **WEIS** (This is an assessment of Work environment) • Time demands: Time allotted for available/expected amount of work • Task demands: the physical, cognitive and emotional demands and opportunities of work tasks • Appeal of work tasks: the appeal or value of work tasks • Work schedule: the influence of work on other values roles or activities • Co-worker interaction: interaction with co-workers required for job responsibilities • Work group membership: social environment with co-workers at work or outside work • Supervisor interaction: feedback, guidance and other interaction with supervisor • Work role standards: overall climate of work setting expressed in expectations for quality, excellence, commitment, achievement and efficiency • Work role style: opportunity for autonomy or compliance when organising, making requests, negotiating and choosing how and what work tasks will be done daily • Interaction with others: interaction with subordinates, customers, clients, audiences, students or other excluding supervisor or co-workers • Rewards: opportunities for job security, advancement in position, and compensation in salary benefits. • Sensory qualities: properties of the workplace such as noise, smell, climate, ventilation • Architecture: architect or physical arrangement of work spaces and environment • Ambience: the feeling associated with the degree of privacy, friendliness, morale, excitement, anxiety, frustration in the workplace • Properties of objects: the physical, cognitive and emotional demands of tools, equipment, materials and supplies. • Physical amenities: Non-work specific facilities necessary to meet personal needs at work such as restrooms, lunch rooms. • Meaning of objects: what objects signify to a person **WRI** Structured questions (roles):- Structured questions (interests):- Structured questions (habits):-

		Structured questions (values):- Structured questions (personal causation):- Structured questions (environment):- - Perception of work setting, family and peers, boss and co-workers **AMPS** • Beverage from the refrigerator • Hot or cold instant beverage • Pot of tea or coffee • Stove-top espresso coffee • Single-cup espresso or coffee • Toast and instant coffee, tea, instant coup or hot chocolate • Toast and boiled/brewed coffee or tea • Cold cereal and beverage • Hot cooked cereal and beverage • Sour milk or yoghurt with cereal and beverage • Hot cooked cereal, open face cheese sandwich and beverage • Scrambled or fried eggs, toast and beverage • Scrambled or fried eggs, toast and boiled/brewed coffee or tea • Scrambled/fried eggs, meat, and boiled/brewed coffee or tea • Omelette or scrambled eggs with added ingredients, toast, and beverage • Scrambled or fried eggs, toast and espresso coffee • Boiled eggs served in egg cups • French toast and beverage • Peanut butter and jelly sandwich • Luncheon meat or cheese sandwich • Tuna, chicken or crab salad sandwich • Grilled cheese sandwich and beverage • Open-face sandwich on unsliced soft bread, and boiled/brewed coffee or tea • Open-face sandwich on presliced bread, and boiled/brewed coffee or tea • Open-face meat or cheese sandwich with sliced vegetable • Jam sandwich • Grilled cheese on toast with beverage • Coffee/tea and biscuits served at a table • Coffee/tea and biscuits served on a tray • Cakes, muffins or brownies • Cottage cheese and fruit salad • Fresh fruit salad • Tossed salad with dressing, served in individual bowls • Green salad, served in a large bowl with dressing on the side • Canned soup and crackers or presliced bread • Fried green plantains • Fried ripe plantains • Beans and toast

		• Vegetable preparation • Pasta with sauce, green salad and beverage • Pasta with meat, sauce, green salad and beverage • Instant noodles, soup or beans • Quick noodles cooked in a pot • Fried meat and vegetable dish with a bowl of rice • Fried rice • Vegetable soup, vegetables sautéed • Vegetable soup • Pasts with sauce and beverage • Prepare tomato sauce for pasta • Pasta with meat sauce and beverage • Heating a frozen meal or dessert in microwave • Heating a pre-cooked meal or dessert in microwave • Meatballs with boiled potatoes, sauce, boiled vegetable and beverage • Sweeping the floor • Hand washing dishes • Vacuuming, moving no furniture • Vacuuming, moving lightweight furniture • Mopping the floor • Vacuuming two rooms on different levels • Cleaning a bathroom • Cleaning windows • Hand washing, drying and putting away dishes • Making a bed with standard sheets and blanket or duvet • Making a freestanding bed with duvet edges folded under • Making a bed against wall with duvet edges folded under • Changing standard sheets on a free standing bed • Changing sheets and duvet cover on bed against wall • Changing sheets on a freestanding bed with duvet • Making bed (with mattress on the floor against a wall) with standard sheets and blanket or duvet • Folding a basket of laundry • Hand washing laundry • Loading and starting a washing machine • Ironing a shirt – setting up ironing board • Ironing a shirt – ironing board already set up • Ironing multiple garments and putting away • Setting a table for one or two persons • Setting a table, Swedish style, for four persons • Repotting a small houseplant • Watering plants and removing dead leaves • Polishing shoes • Eating a meal • Brushing teeth • Upper body washing • Putting on socks and shoes – slip on or prefastened • Putting on socks and shoes – fastened or tied • Upper body dressing – garment in reach

		• Upper and lower body dressing – garments stored • Upper body grooming and total body dressing • Eating an Asian meal with chopsticks • Showering • Upper and lower body dressing – garments set out • Eating a snack with a utensil • Eating a snack and drinking a beverage • Brushing or combing hair • Washing and drying the face • Shaving the face using electric razor • Sweeping outside • Raking grass cuttings or leaves • Weeding • Vacuuming the inside of an automobile • Shopping • Feeding a cat – dry cat food and water • Feeding a cat – moist cat food and water • Feeding a dog – dry dog food and water • Feeding a dog – moist dog food and water

DOMAINS		
BALANCED LIFESTYLE		
Time use and routines	WRI	**PSP Scale** • WORK: have you been working, details etc? • SOCIALLY USEFUL ACTIVITIES: Besides work what else do others see you doing as useful? **Role checklist** By exploring fulfilled roles **WRI** Structured questions (interests):- - Enjoys work - Pursues interests Structured questions (habits):- - Work habits - Daily routines - Adapt routine to minimise difficulties **OCAIRS** • Habits • Physical environment
Habits	WRI OCAIRS	
Mix of occupations	PSP Scale Role checklist WRI	
MOTIVATION		
Active involvement	WRI	**WRI** Structured questions (values):- - Commitment to work - Work related goals Structured questions (interests):- **OCAIRS** • Personal causation • Interests • Short-term goals • Long-term goals • Readiness for change
Motives and drives	WRI OCAIRS	
Shows interest	WRI OCAIRS	
Goal directed behaviour	WRI OCAIRS	
Locus of control	WRI	
AFFECT		
Repertoire of emotions		**PSP Scale** • DESTRUCTIVE AND AGGRESSIVE BEHAVIOR: In the last <reference period> did you ever lose control of your temper? Follow-up questions: Did you shout at anybody? Did you throw or destroy objects? Did you hit or hurt anybody? How severe was it? Did you really want to hurt them? How often did it happen? Do you think that is going to happen again in the near future? If uncertain between mild and manifest: How many people have noticed that you have some difficulties in self control?
Control	PSP Scale	
Mood		

APPENDIX G

CONSTANT COMPARISON OF OTHER DOMAINS

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES

PROCESS SKILLS	**BaFPE**
	• Sorting shells (size, shape, colour)
	• Home drawing (following instructions)
	• Block design from memory or cue card
	• Kinetic person drawing
	AMPS
	• ALL AMPS activities
		• Matching of pairs
		• Allen cognitive levels
		• DTVP-A
		• CAM
		• The envelope
		• Paper activities
		  ○ Making a card
		  ○ Origami
		  ○ Making a square out of an A4 piece of paper
		• MODAPTS (standardise an activity)
		• Decoupage
		• Knowledge and life skills
		• Knowledge and role competence
		• Learned activity
		• COTNAB
		• Games
		  ○ Rush-hour
		  ○ Sudoku (graded)
			• Activity is important
			• Both familiar and unfamiliar activity
			• Engagement, execution, use of material
			• Assess process skills though a variety of activities – never assess one thing at a time.
			• Complex and simple Structured and unstructured
			• Paper-based are easily gradable
			• Task concept varies over situations
			• Organising space and objects is always looked at regardless of what assessing.
			• Task concept and role competence
			• Pace and motivation and organising space
			• Organising space and objects, task concept also with many life skills
			• Knowledge and life skills and role competence
			• Adaptation links with all items
			• The patient to talk me through what they doing to hear the process.
				• Leatherwork
				• Origami
				• Money pouch (measure material, 1cm all way round, thread string through holes, hang around neck)
				• Card making
				• Heart chocolates
				• Make boxes
				• WASP – for pace
				• Usually use WASP if they are employed or adolescence for school
					• Work activities
					• Instructions
					• Be about an hour long
					• Must be an end point
					• Themes for time of year
					• Change instructions or part they have to do to grade it
					• If they initiate on own them they are more likely higher functioning
					• Look at how they respond to global instructions
					• Look at how they interact
					• How they dress
					• Don't let first appearance be your only assessment, activity tells a lot
					• Prevoc skills are defining in functioning
					• Compare pace to others in group
						Process skills
						• Developmental Test of Visual Perception –Adults
						• Cognitive Assessment of Minnesota
						• The Chessington Occupational Therapy Neurological Assessment Battery
						• WASP
						• Card games
						• Paper and pen based activities with instructions
						• Art Activities
						• Material based
						• Board games
						• Projects
						Domestic tasks
						• Snack/meal making
						• Cleaning activities
						• Care of bed area
						• Laundry and ironing
						• Garden maintenance
						• Pet care
						• Dressing
						• Grooming

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES
COMMUNICATION/SOCIAL INTERACTION	**BaFPE** • One to one interview • Meal time • Unstructured group • Structured activity group • Structured oral group **ILS** • Communication • Social Adjustment (questions relating to self, others, values) **PSP Scale** • PARTNER/SPOUSE: Do you have a partner or a spouse or a boy/girlfriend)? If Yes: Do you live together? How do you get along? Do you speak to each other? Do you have common plans? • FAMILY (different from partner): In the last <reference period> have you been in touch with any of your relatives? Sample follow-up questions: How often have you seen them? Did you get along well or did you have problems? Do they help you? Do you help them? If patient lives in a residential facility: During leave from the residence or when your relatives came to visit you, did you get along well with them? • SOCIAL	• Groups ○ Team work ○ Competition ○ Group production chain ○ First contact (Initial interaction with patient) • Collateral information ○ Ward ○ Night ○ Weekends ○ Home • Observe in the dining hall • Games ○ 30 seconds ○ Monopoly ○ Ludo with lower functioning • Sports ○ Playing in a team • Dances • Braais • Survivor game ○ Obstacle courses • Skills-master game	• Observe all the time, not necessarily in a specific activity. • One-on-one you won't see social skills • Reactions to different therapists • Appropriateness in different contexts. • Lower level - a little bit of competition energises and facilitates participation • Role-play creates an artificial environment people know how they must react - but in a real situation they don't do that. • In role play see if they are aware of the norms and then see behaviour in different things. • Play different roles in a situation • Look for empathy	• Assess it all the time • Structured and unstructured group • During interview • Working in a team • Board games don't really require interaction • How are they in the ward • How do they behave • Are they aggressive • OTA gives assistance	• Teamwork • Island game • General knowledge • Social bingo • Sport • Leisure groups	• Team games/competitions • Board games • Sporting activities • Social activities • Structured activity group • Role play scenarios • Interview questions • Collateral information • Observation in unstructured setting

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES
	RELATIONSHIPS: In the last <reference period> how often did you go out to meet other people? Sample follow-up questions: Do you like meeting and speaking with other people? Do you do things together with other people? Do other people like you? How many friends do you have? Are they patients or workers of the mental health service? Do you have somebody who can help you when you need it? If uncertain between mild and manifest: How many people have noticed that you have some difficulties in social relationships? • DISTURBING BEHAVIOR: In the last <reference period> did you behave in a way that some people may have thought rude or insensitive? Sample follow-up questions: Did you take something belonging to others without asking permission? While drunk, did you do something that could annoy others? Did you ever do something strange that other people may have found worrying?					

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES
	Did you speak too loudly or have your music or the TV too loud? Did you keep asking other people for money or gifts? Did you complain often about your condition? How many people have noticed that you were behaving in a disturbing way for others? **SSPA** • Role play scenarios (tenant meeting neighbour, tenant calling with complaint to landlord) **UPSA** • Using telephone (Emergency number; Information; making an appointment)					

LIFE SKILLS	**ILS**
	• Managing money (questions relating to personal finance, governmental obligations, tax, health insurance, writing a will)
	• Managing home and transportation (questions relating to household repairs, bus schedules and costs, telephone book usage)
	• Health and Safety (questions relating to calling emergency services, reasoning situations, health issues, personal care
	KELS
		Self care
		• Dice throw
		  ○ Each number is an activity that meets a requirement for an activity of personal management
		• Collateral information
		  ○ At home
		  ○ Independent/dependent
		• Interview
		• Observations
		  ○ What he looks like
		• Day plan
		Childcare
		• Collateral information
			• Uncomfortable watching a person bath or shave or brush their teeth etc
			• Personal care is a difficult thing as you actually working with a person's perception of his own skills
			• Linked to roles
			• People's perspectives of childcare are very different.
			• Child care is difficult to do with every patient.
			• Only Ax childcare if indicated
			• There is a difference between what they say and what they actually do.
			• Triangulate collateral
				Collateral information from wards and family
				OTA observation in personal care groups
				Look in the file
				Return from LOA report
				We sometimes limit our observation of safety because we want to avoid a dangerous situation
				
				Do they keep their medication in a safe place?
				Collateral from nurses or home
				Can they bring themselves on public transport to the
					Do they need assistance?
					Can they do it themselves?
					Does he go to the shower on his own or do you have to fetch him?
					Observe all the time
					Do they check when they cross the road?
					Not an actual activity for safety but if is a problem it would be overt
						Life skills
						
						<u>Self care</u>
						• Dice games
						• Day planning
						• Prop use in grooming/dressing
						• Genuine dressing/grooming
						• Collateral information
						• Interview questions
						• Observation
						
						<u>Childcare</u>
						• Collateral information
						• Mother and child combined

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES
	• Self care (self report, appearance) • Safety and Health (photographs of dangerous situations, actions for sickness and accidents, knowledge of emergency numbers and location of medical services) • Money management (purchasing items, maintaining income sources, budgeting for food, using banking forms, paying bills) • Transportation and telephone (knowledge of transit system, use of telephone book) • Work and Leisure (plans for future employment, leisure interests) **MMAA** • A role-play task where 4 mock-prescription bottles of medication are given with directions for dosage and administration. After an hour subjects have to describe to examiner exactly how to carry out medication regimen **OTAPS** • Safety (14 items) • Medication administration (10 items) • Meal planning (7 items) • Money management (11 items)	• Mother and child combined session **Personal safety** • Personal history interview • General awareness of safety ○ Kitchen safety ○ Crossing the street ○ Sexual safety **Care of medication** • Interview ○ Side effects - do they experience side-effects that they find it difficult to cope with ○ How do you feel about the medication? • Health talks **Transport** • Interview ○ What taxis to take where? How much does it cost? ○ Had they used it in the past and if they haven't used it what is the reason why not? ○ Do they know they have to put in petrol?	• Refer to driving testers to be assessed • As an OT we can look at skills leading up to driving • Caroline rule is developing an assessment battery for driving • Domestic skills can be used to assess a lot of things • Assertiveness observed within communication and social interaction. • Stress and conflict management is very complex and very difficult to assess. • Perception of the skills • Be careful when taking collateral information about conflict as you don't know what the real situation was. • Stress and anxiety are linked • For sensory profile they have to be aware of themselves. • Get the patient to tell you why they are making the decisions that they are making and take note of the comments they make. • You need to assess vocational skills over a large amount of time. • O-net gives you all the job descriptions.	sessions or back from leave? Do you have a car? Do you walk? Do you take a taxi to the shops? Where do you buy a ticket for the bus? How do you catch a taxi? What do you say to the bus driver? Social skills is NB with public transport General sense of direction Tidying up or cleaning department Explain the purpose carefully Cooking or baking Do they clean up after themselves? Chicken, vegetables and rice Cook in a group Scones or cupcakes Interviewing When child care is a problem it is overt Don't usually question around childcare as such What do you do with your money? Do you budget for		interview <u>Personal Safety</u> • Interview questions • Observation of general safety awareness • Awareness of emergency services and responses Care of Medication • Interview questions • Role play medication regime Transport • Interview questions Domestic skills • *Assessment of Motor and Process Skills* • Collateral information • Menu planning • Meal budget planning • Cooking group • Genuine domestic tasks Budgeting and money management • Money management devised games • Budget collages

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES
	PADL Physical ability with the use of props to: • Drink from a cup • Use a tissue • Comb hair • File nails • Shave • Feed • Turn tap on and off • Turn light switch on and off • Remove buttoned jacket • Put on and remove slippers • Brush teeth • Make a phone call • Sign name • Turn key in lock • Tell time • Walk **PASS** **Personal care:** Oral hygiene, Dressing, Trimming toenails **ADL:** Shopping, Bill paying by cheque (money management), Chequebook balancing (money management), Mailing (money management), Bending, lifting, carrying (heavy housework), Telephone use, Medication management, Changing bed linens (heavy housework), Obtaining critical information from the media (auditory), Obtaining critical information from the media (visual), Small repairs (home maintenance), Sweeping (home	○ How far can they drive with a half a tank? ○ Effect on budget? **Domestic skills** • Activities from the Amps • Collateral information • Working out a menu • Budgeting for a certain number of people for a meal • Cooking group ○ Washing up ○ Packing away ○ Organising objects **Budgeting** • Pay day game (Wits 3rd year) • Budget collages ○ Pick out a newspaper or magazine what is necessary for the weekend etc • Comparing budgets for different living circumstances ○ Write down what their expenses • Monthly budgeting from adverts or a pamphlet • Simulation • Boxes of stuff and put the labels on them		certain things? Make sure it is appropriate Shop from adverts How do they decide what to spend their money on? Can they manage change at the shops? Assertiveness is assessed all the time Social and prevoc groups How do they respond to others and the therapist? Make an elements of sharing in the group so that they have to ask Interview questions – ask them what makes them stressed? How do they deal with the stress? How do they handle conflict in all group situations Sometimes it is difficult to actually observe conflict as we work in a therapeutic environment Collateral Vocational skills Work samples Job simulation Joule WASP – reading,		• Expenses tabulation • Monthly budgeting from adverts • Simulated shopping with imitation money • Collateral information • Cheque paying and balancing • Using banking forms • Paying simulated bills <u>Assertiveness</u> • Group activity • Board games <u>Stress Management</u> • *Sensory profile* • Timed games • Interview questions • Collateral information • Observation in unstructured setting <u>Problem solving</u> • *Cognitive Assessment of Minnesota* • Computer games • Interview questions <u>Vocational skills</u> • *Worker role*

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES

	maintenance), Home safety (environmental awareness), Playing bingo (leisure), Oven use (meal preparation), Stove use (meal preparation), Sharp utensil use (meal preparation), Clean-up after meal preparation (light housework)
	PSP Scale
	4. PERSONAL HYGIENE: In the last <reference period> how often have you taken a shower or a bath? Sample follow-up questions: Did you wash alone or did somebody remind or help you? Have you cleaned your teeth every day?
	5. CARE OF ONE'S APPEARANCE: For men without a beard: Do you shave regularly? For women: Have you used a little make-up, at least on special occasions? Have you gone to a hairdresser?
	6. WAY OF DRESSING: In the last <reference period> did you always put on clean clothes? Sample follow-up questions: Did you ever go out in pajamas or not properly dressed? Did you ever dress in a way that people might find unusual for the period of the year or the weather? Did
		• Use of ZAR money
		• Copies of money
		  ○ Large denominators
		  ○ Coins
		• Collateral
		Assertiveness
		• Group setting
		  ○ Leader /follower
		  ○ Stand up for self
		• Games
		  ○ Pardon: you need to cause negative consequences for the person next to you
		  ○ Skills game (Weskoppies)
		Stress and conflict management
		• Interview
		  ○ How do you experience life currently?
		  ○ Specifically about conflict? What is your way of dealing with conflict?
		  ○ Tell me about a conflict that you found difficult to deal with in the past and then explore what the difficulties
				writing, mathematics, computation, comprehension
				COTNAB
				CAM
				Components of the assessments
				T-Pal
				
				Problem solving
				Put a problem into an activity
				Problem in the written instructions, or there is not a tool available
				Can you use this?
				What else could you use?
				
				Even WASP is not appropriate
				We work in a very structured environment so difficult to see the real-life functioning
						interview
						• *Worker environment impact scale*
						• Work simulation tasks
						• Interview questions
						• Collateral information

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES

	people ever complain that <patient's name> had a bad smell? How many people have noticed that you were not perfectly clean and rather untidy?
	• WORK: In the last <reference period> did you work?
	or STUDY: In the last <reference period> have you been to school?
	If Yes: Where? How many days? How many hours a day? Have you had difficulties at work (school), for instance with the other workers (students) or your manager (teachers)? Have you been on time?
	• SOCIALLY USEFUL ACTIVITIES: Apart from work, did you do something that other people may find useful? Follow-up questions: For instance, did you help with a household task (cleaning the house, tidying things up, cooking)? Did you help to organize something or with gardening or sewing? Have you done some volunteer work?
	How many people have noticed that you have had some problems at work (study)?
		were?
		• Observation in informal setting
		• Collateral
		  ○ Conflict situations in the ward
		• Personal history information
		  ○ Reasons for admissions?
		• Sensory profile
		  ○ Stressors
		• Games
		  ○ Pass of the bomb: they have a ticking bomb that you switch on and then there is the topic and they have to think of words before the bomb explodes and then if you caught with the bomb you either out or get a card
		Problem solving
		• CAM
		• Computer programs
		  ○ Mazes
		  ○ Answer questions to solve a problem
		• Interview					

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES
	UPSA • Cooking (rice pudding recipe) • Prepare shopping list (mock grocery store) • Finance (counting change, paying electricity bills) • Transportation (finding way to a specific place, bus schedule administration) • Planning recreational activities (role play planning exactly the process and planning of the outing) **WEIS** (This is an assessment of Work environment) • Time demands: Time allotted for available/expected amount of work • Task demands: the physical, cognitive and emotional demands and opportunities of work tasks • Appeal of work tasks: the appeal or value of work tasks • Work schedule: the influence of work on other values roles or activities • Co-worker interaction: interaction with co-workers required for job responsibilities • Work group membership: social environment with	○ What is the problem that you having difficulty with at the moment? ○ What have you tried, what has worked, what has not been so successful? **Vocational skills** • Interview ○ What job they had? ○ Do they still have the same job? ○ What the job entails? • Collateral ○ Performance at work • Work simulation • Worker role profile – Kielhofner				

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES
	co-workers at work or outside work • Supervisor interaction: feedback, guidance and other interaction with supervisor • Work role standards: overall climate of work setting expressed in expectations for quality, excellence, commitment, achievement and efficiency • Work role style: opportunity for autonomy or compliance when organising, making requests, negotiating and choosing how and what work tasks will be done daily • Interaction with others: interaction with subordinates, customers, clients, audiences, students or other excluding supervisor or co-workers • Rewards: opportunities for job security, advancement in position, and compensation in salary benefits. • Sensory qualities: properties of the workplace such as noise, smell, climate, ventilation • Architecture: architect or physical arrangement of work spaces and					

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES
	environment • Ambience: the feeling associated with the degree of privacy, friendliness, morale, excitement, anxiety, frustration in the workplace • Properties of objects: the physical, cognitive and emotional demands of tools, equipment, materials and supplies. • Physical amenities: Non-work specific facilities necessary to meet personal needs at work such as restrooms, lunch rooms. • Meaning of objects: what objects signify to a person **WRI** Structured questions (environment):- - Perception of work setting, family and peers, boss and co-workers **AMPS** • *As under process skills*					

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES
ROLE PERFORM - ANCE	**KELS** • Work and Leisure (plans for future employment, leisure interests) **Role checklist** • Occupational role career, perceived incumbency and value designation: of being a student, worker, volunteer, caregiver, home maintainer, friend, family member, religious participant, hobbyist, participant in organisations or other. **WRI** Structured questions (roles):- - Identifies with being a worker - Appraises work expectations - Influence of other roles **OCAIRS** • Roles	• Interview o Explain the role to me? o Tell me about your work? What is expected in that role? o How many roles do you have? o What are the roles you have at the moment that you do not want to have? • Role checklist o Discuss it o Prioritise o Most important role they had? • Adapted role checklist • Worker role interview • Activity's health checklist with role checklist to assess the balance. • 24 hour day pie chart thing • Day plan		Interviews Then interview around those things		**Role Competence** • Day planning • 24 hour pie chart • *Activities Health checklist* • *The Role checklist* • *Worker role interview* • Interview questions

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES
BALANCED LIFESTYLE	**PSP Scale** • WORK: have you been working, details etc? • SOCIALLY USEFUL ACTIVITIES: Besides work what else do others see you doing as useful? **Role checklist** By exploring fulfilled roles **WRI** Structured questions (interests):- - Enjoys work - Pursues interests Structured questions (habits):- - Work habits - Daily routines - Adapt routine to minimise difficulties **OCAIRS** • Habits • Physical environment	• Day planner • Interview o Difference between weekdays and weekends o Do they sleep in the day? o What time do they go to sleep? o Do they find it difficult to go to sleep? • Observation	• If there is a problem with roles you more likely to see a problem in balanced lifestyle. • Sleep can become an incapacitating bad habit	Day clock Day planner Activity profile Collateral – what do they do at home?		**Balanced lifestyle** • Day planning • *The Role checklist* • *Worker role interview* • Interview questions
MOTIVATION	**WRI** Structured questions (values):- - Commitment to work - Work related goals Structured questions (interests):- - Enjoys work - Pursues interests **OCAIRS** • Personal causation • Interests • Short-term goals • Long-term goals • Readiness for change	• Interests checklist • Observation o Known and unknown activities o Attendance o Participation • Interview o What are you doing over weekends in the hospital? o How much support is the environment giving? • Functioning in an	• Locus of control, problem solving and conflict management, are very closely linked. • If they're going out of the hospital and couldn't cope then they should be placed in a place that will keep the structure there. • You needn't see failure to assess he's functioning on a lower level. You may intersect, as you've now done your assessment and you making a judgement call on handling. • Assessment must match		Observation in all situations During process skills and social groups Unstructured leisure time Motivation to attend OT How they engage? What effort are they putting in? Are they trying? What is their attitude like?	**Motivation** • *The Interest checklist* • *Worker role interview* • Interview questions • Observation

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES
		independent living unit	the real-life situation of the client. You need to be aware when you are adapting. • Baseline assessment is always at least two or three activities. • It's important to listen to what the client is telling you. Interpret between the lines.			
SELF ESTEEM	**BaFPE** • Structured activity group **ILS** • Social Adjustment (questions relating to self, others, values) **WRI** Structured questions (personal causation):- - Assess abilities and limitations - Expectation of success - Takes responsibility Structured questions (environment):- - Perception of work setting, family and peers, boss and co-workers	• Observe o Comments made when they do the activity o Willingness to participate o Willingness to change or try something new o Behaviour and comments in interpersonal settings • Known groups o How I see myself o What are other people's first impressions of me? • Quizzes o How do you feel about yourself? o Are you right brained or left brained?	Self esteem links with motivation. If a patient has low self esteem you would know it, and hear it and feel it. If people are very depressed they don't hear feedback. Is it someone meaningful giving them positive feedback Take note of cultural differences. Avoid using an unknown group. There may be members who are difficult and it is extremely non-therapeutic.	Self groups Cut out pictures and words that describe themselves Grade: Cognitive self to like and dislikes to ideal self What food I like Coat of arms Social bingo Answer or complete a sentence about themselves I describe myself as... How do I feel about my body? I feel sad when... I feel happy when... I'm good at... I'm not so good at... Kawa Model Rush hour Computer work Kim's game Jenga Pictionary	Look for changes in behaviour	**Self esteem** • *Worker role interview* • Self-themed groups • Self based quizzes • Structured activity group • Observation

DOMAIN	LITERATURE APPRAISAL	GROUP 1 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 1	GROUP 2 ACTIVITIES	OTHER POINTS FOR GUIDELINES FROM GROUP 2	POSSIBLE THEMES

AFFECT	**PSP Scale**
	• DESTRUCTIVE AND AGGRESSIVE BEHAVIOR: In the last <reference period> did you ever lose control of your temper? Follow-up questions: Did you shout at anybody? Did you throw or destroy objects? Did you hit or hurt anybody? How severe was it? Did you really want to hurt them? How often did it happen? Do you think that is going to happen again in the near future?
	If uncertain between mild and manifest: How many people have noticed that you have some difficulties in self control?
		• Observe
		  ○ All activities
		• Reflect one picked up emotions
		• HADS
		• BECKS
		• Hamleys depression scale
		• Collateral
		  ○ Mood
		  ○ Different situations appropriateness
		• Interview
		  ○ Stressors involved?
		  ○ What influences affect?
			• Self report questionnaires
			  ○ Reporting is what they hear from others and what they want you to hear.
			  ○ Poor insight
			  ○ Avoid them if possible
			• In interviews you can explore and pick up the non-verbal tone. You get much more information.
			• Interviews are more culturally sensitive
			• In interviews you can explain the concept if they don't understand the question to get better information.
			• HADS and BECKS don't give nearly as much as what you see if you watch them and see them doing something or listening to what they say. That form is just used as one has to have standardised outcomes if you are doing a functional capacity evaluation.
				Observation	Self report not really appropriate
					They need direction in the questions
						Affect
						• Collateral information
						• Interview questions
						• Observation

APPENDIX H

EXAMPLES OF THE DOMAIN SECTIONS FROM THE ACTIVITY PARTICIPATION ASSESSMENT

PROCESS SKILLS

WHAT ARE PROCESS SKILLS?

The cognitive and executive functions that one uses to perform a task. This includes the ability to plan a task, select and use tools and materials appropriately, to pace the actions and to adapt one's performance when problems are encountered. [11]

WHAT MAKES UP PROCESS SKILLS?

- Attention
- Pace
- Knowledge
  - concept formation
  - Handling of materials and tools
- Skills
  - using tools and materials
- Task concept
- Organising space and objects
- Adaptation
  - anticipate, correct and learning from errors

GENERAL GUIDELINES TO BE AWARE OF WHEN ASSESSING THIS DOMAIN

Activity use is important

When assessing this domain it is of utmost importance to engage the MHCU in an activity. They must be 'doing' or 'performing'. While they are performing an activity, the use of their cognitive or process skills must also be observed.

Through observing how a person is engaging in an activity, you will be able to gain information about their process skills. Process skills should be

assessed through a variety of activities; you cannot make a thorough assessment after using just one activity.

Both a familiar and an unfamiliar activity should be used

We all learn from past experiences; which is why it is recommended that when assessing a person's true ability it is necessary to engage them in familiar and unfamiliar activities.

A familiar activity is used so that you are able establish how the person performs when using learnt knowledge and skills. Familiar activities are activities that the person has done before. They may not be an exact replica of what the person has previously done, but do resemble elements of previously learnt knowledge and skills.

An unfamiliar activity is used so that you are able to establish how the person performs when using knowledge and skills that are newly learnt or inferred from previously learnt elements. Unfamiliar activities are activities that a person has not been exposed to in everyday life. It is however important to note that even though you should choose an activity that is unfamiliar to the person, it should still fall within their life context, and be appropriate to their interests and culture.

Complex and simple

It is often very difficult to judge a person's ability from initial contact. As therapist's we do not want to engage a person in an activity that is *too easy* or *too difficult*, as both have negative outcomes. Often we emphasise this is in treatment – selecting an activity that will ensure the *just right challenge* for the MHCU. It is much the same in assessment. Assessment activities are usually the first form of engagement that you will have with your MHCU. It is your chance to begin to establish a therapeutic relationship, and therefore your activity choice in the initial contact stages with the MHCU will decide how theMHCU reacts to you and your therapy.

A key factor in choosing a suitable assessment activity is to make sure the activity is easily graded from simple to complex. In that way, even if you are unsure of the MHCU's exact abilities you will simply be able to adapt the activity if you find the MHCU is struggling or performing the activity well.

Structured and unstructured

When choosing between a structured and unstructured activity, it is important to ask yourself what the reasons are for your choice.

Structured activities are activities that have been carefully planned out with instructions and methods that create a defined end product or come to a defined end point. These activities are usually good for initial assessment activities, and with MHCUs that you feel may lack the initiative to create

independently. Structured activities will give you a lot of information on a person's ability to follow instructions and use specific tools and materials.

Unstructured activities are activities in which the MHCU has more freedom to choose and initiate their own process. As a therapist you can also grade how unstructured you wish the assessment activity to be. You may want the MHCU to develop or create an end product without your input, or you may want to give a few instructions and allow them to initiate the other processes. Unstructured activities will give you information about a person's ability to initiate, and draw on previous knowledge and skills, as well as adapt to situations.

No domain is assessed as a sole element

While assessing process skills you should make as many observations as possible, as this will assist in your overall assessment of functioning.

For example, you may want to note the following:

- How do they respond to problems in the instructions or a lack of tools available?
- Can they attempt an unfamiliar activity?
- Can they initiate?
- How do they respond to others on the group if in a group situation?
- How are they dressed and presenting themselves to you or others?

GENERAL ACTIVITY REQUIREMENTS

The activity you choose to use for your assessment should have the following elements to ensure that you are able to observe as many of the items in the process domain as possible:

- Different materials can be used in the activity (i.e. paper, glue, leather, glitter, string, wool, cardboard etc)
- Different equipment and tools can be used in the activity (i.e. rulers, pencils, paint, sponges, rollers, scissors, rubber stamps etc)
- Instructions should be available (either written, diagrammatic or verbal)
- There must be a definite end point (the activity should end at an opportune time and with something that has been created by the MHCU)
- Be of sufficient length (usually 45 minutes)

WHAT TO LOOK OUT FOR

- How are they attending to the task? Do they become easily distracted? Are they able to continue focusing after interruptions? Do they need multiple repetitions of instructions to carry out the task?
- At what pace are they attending to the task? Do they take care in their execution or are they rushed to complete the task? If in a group situation, how does their pace compare to others?
- Are they relying on previous knowledge to carry out the task?
- Do they have the skills, whether it is previously learnt skills or newly learnt skills?
- How they respond to global instructions? Do they have elements of task selection, task execution, task completion, and task identification?
- How do they arrange their working space methodically? Do they collect all tools and materials and situate them at their place for use? Do they work in a messy area with little concern for structure?

**The notion of Task Concept can be further clarified in the following sources:*

- ❖ *Creative ability: a model for psychosocial occupational therapy – a book section in the book entitled Occupational Therapy in Psychiatry and Mental Health [16]*
- ❖ *A journal article published in the South African Journal of Occupational Therapy entitled Investigation into the criteria and behaviours used to assess task concept [53]*

WHAT METHODS ARE SUITABLE FOR ASSESSMENT

A. Activities

Paper and pen activities

Paper and pen activities are straightforwardly prepared and simply graded. They can be used with almost all MHCUs, as most people are familiar with the materials required for execution of these activities.

Examples of these activities are:

- Envelope making
- Origami
- Box making

Details of these activities can be found in the appendix.

Arts and craft activities

Creative and craft type activities are not always familiar to MHCUs. These types of activities are usually used as the “unfamiliar” activity in assessments. They often require the use of unfamiliar tools and materials. Depending on which activity you are using and how you adapt the instructions to suit your needs and the MHCU’s abilities; it is usually found that an activity such as card making is much less structured than decoupage or leatherwork. Decoupage is not a flop proof activity so if you are choosing to use this or a similar type activity for assessment purposes then you should be aware of this fact and make sure you put measures in place to avoid a negative outcome for the MHCU. Decoupage also takes time, which should be considered.

Note must also taken of the guidelines given about using unfamiliar activities above.

Examples of these activities are:

- Decoupage
- Card making
- Leatherwork
    - Money pouch
    - Key rings

Details of these activities can be found in the appendix.

Kitchen activities

Snack or meal making are an excellent choice for an activity that will require the use of the majority, if not all, of the items making up the process skills domain. When performing an activity in the kitchen for assessment purposes, it is of utmost importance that general kitchen safety rules apply. Depending on the resources available, you can devise your own recipe or make adaptations the ones provided in the appendix.

B. Standardised assessments

The following assessments designed by various authors may be of use to assess the process skills domain:

- Modular arrangement of predetermined time standards

- Developmental Test of Visual Perception – Adults
- Cognitive Assessment of Minnesota
- The Chessington Occupational Therapy Neurological Assessment Battery
- Work ability Screening Programme
- Bay area functional performance Evaluation
- The Assessment of motor and process skills

LIFE SKILLS

WHAT ARE LIFE SKILLS?

Skills and competencies required by a person to manage independently in the community. It includes the abilities individuals acquire and develop to perform everyday tasks successfully. [11]

WHAT MAKES UP LIFE SKILLS?

- Personal care
- Child care
- Personal safety
- Care of medication
- Use of transport
- Domestic skills
- Budgeting and money management
- Assertiveness
- Stress and conflict management
- Prevocational skills (personal presentation, social presentation, work competency skills)
- Vocational skills
- Problem solving skills

GENERAL GUIDELINES TO BE AWARE OF WHEN ASSESSING THIS DOMAIN

No domain is assessed as a sole element

While assessing Life Skills you should make as many observations as possible, as this will assist in your overall assessment of functioning.

If you find problem areas in the assessment of any of the Life Skills, it is then important to consider where the problem lies. It is important to have this clear in your mind, so that you are able to determine your treatment approach accordingly. A problem may lie in one, or on occasion in more than one of the following areas:

- Knowledge about the skill
- Performing the skill (actual skill)
- Routinising of the skill (some skills are routinised e.g. personal care and others not e.g. assertiveness)
- Attitude towards performing the skill

DOMESTIC SKILLS

General guidelines

Domestic skills are excellent activities to use to assess many of the domains simultaneously. Process skills are used to high degree during domestic tasks such as cooking and baking. If you structure your assessment in such a way that others are involved in the activity, then you can observe communication or interaction skills simultaneously.

Role performance is linked to domestic skills. You should note the MHCU's life roles when deciding which, if any, domestic skills are relevant for assessment.

As the MHCUs perform the activities you should take note of the following things:

- How are they approaching the activity?
- Are they aware of kitchen or cleaning norms?
- Do they clean up after themselves?
- Are they aware of tool use?
- How do they arrange their working area?
- With what quality do they perform this skill?
- Are they aware of personal/cooking hygiene, such as washing their hands?

WHAT METHODS ARE SUITABLE FOR ASSESSMENT

A. Activities

Menu and shopping list planning

Planning a menu is not traditionally considered a domestic skill, but is a skill of home management. By having the MHCU perform this activity, you will gain insight into their ability to plan, and take care of their and their family's nutritional needs.

A menu planning activity can be graded according to the MHCU or your assessment objective. You may want the MHCU to plan a weekly eating schedule and then devise a shopping list based on that eating schedule. If you find the MHCU copes well with that activity then you may want to include budgeting or money management skills and ask the MHCU to go through food advertisements and pick out items from his shopping list that will fit into his budget. Details of this activity can be found in the appendix.

Cooking or baking (individual / group)

When selecting cooking or baking as an assessment activity, you should bear in mind the culture and resources available to the MHCU in their home environment. These activities can also be graded from simple to complex. It is not suggested that you use a cooking or baking activity as an initial assessment task with the MHCU This is because it is difficult to make changes to the activity whilst the MHCU is engaging, as cooking and baking usually follow a somewhat rigid recipe. After performing an activity suggested under the process skills domain, you will have a better idea of what the MHCU's abilities are. Examples of cooking or baking activities can be found in the appendix.

Cleaning

If you select to use cleaning as an assessment task, it is of utmost importance that you explain the reasons for selecting this task to the MHCU.

If you have cleaning equipment available you may want to set up an activity where the MHCU has to clean the kitchen, or spring clean the office etc.

Laundry

Laundry simulation is another activity that one could use to assess process skills. You may want to build up a collection of various clothing items of different materials and colours. Consideration of the MHCU's laundry facilities in their home must be made. You may want to ask the MHCU to show you how they would perform the laundry with the clothing items you have presented to them. The following could be assessed:

- Sorting the colours from the whites
- Pre-stain removal
- Appropriate use of washing powder
- Garment care (i.e. for different materials such as cotton, wool, silk)
- Use of an automatic machine or hand washing
- Hanging up the washing
- Folding or ironing the garments

A. Standardised assessments

The following assessments, or components thereof, designed by various authors may be of use to assess this item:

- Assessment of Motor and Process Skills

BUDGETING AND MONEY MANAGEMENT

General guidelines

Budgeting and money management should only be assessed if it forms part of the person's daily responsibilities. Sometimes it is found that people are not responsible for higher order budgeting and money management tasks (such as investing money, keeping track of bank accounts, paying accounts etc) for one reason or another. It is important to establish to what level you are required to assess these skills. For the most part, it is the essential money management and budgeting skills that we would be interested in assessing. It may be as simple as taking money that the MHCU has been given by his parent, or partner etc and going to the shops to buy the basic essentials. Are they able to do this independently? Or are they able to supply the correct amount of money to the public transport administrator?

Care should be taken to liken your assessment to the context of the MHCU and their financial knowledge and familial habits.

WHAT METHODS ARE SUITABLE FOR ASSESSMENT

A. Interview

Interviewing can be used to aid in the assessment of budgeting and money management, however it is strongly recommended that you do not

rely on this method alone to make your final judgment about a person's abilities.

The following questions can guide your interview:

- What do you do with your money?
- How do you decide what to spend your money on?
- Do you budget for certain things of importance?
- Are you able to receive the correct change from shops?
- Have you ever arrived home to find that you have spent money that is unaccounted for? Or does your family ask you for money that you cannot account for?
- Are you responsible for the grocery shopping or does your mother, siblings or partner do this? If they are doing it – for what reason do they do the shopping and not you?

B. Activities

Money management devised games

If you have the opportunity to devise a money management game in your occupational therapy department, it is highly recommended that you do so. If you devise a game yourself, you will be able to incorporate all the essential skills that you usually find a need to assess in your setting. This may take initial effort to think of and construct a well-developed game (such as a board game). But the usefulness of this type of game will far out way the effort it takes to create it.

Paying by cheque and balancing your cheque book

You can use this activity for a person who is familiar with and usually uses this form of payment. An example of this activity can be found in the appendix. There are a number of cheque stubs with payment details on them, and a blank cheque with details of payment that needs to be made. You can ask the MHCU to fill out the blank cheques and then balance the cheque book.

Using banking forms

An example of a deposit slip can be found in the appendix. You may want to ask the MHCU to fill out the deposit slip as if he were going to deposit a certain amount of cash at the bank.

Budget tabulation

You could ask the MHCU to fill out the income and expenses tabulation on the form that can be found in the appendix. In this way you will be able to

ascertain whether the MHCU is aware of the cost of items and how they prioritise their budget if at all.

Budget collages

Budget collages can be altered according to your assessment needs. The general idea of a budget collage is to state the theme or occasion for the collage, and then have the MHCU cut out items from an advertisement brochure and make a collage of these items. You can add in a stringent budget that they should work with, or you could ask them what they feel would be an adequate or reasonable budget for the situation. You will have to choose or design pamphlets that will suit the MHCU's context. You may find it beneficial to have an array of adverts from different shops which the MHCU can choose from. I.e. Checkers adverts, Hyperama, Pick n Pay etc. The advertisements which you choose should be up to date and contain everyday grocery items.

Here are two examples which can be used as themes for budget collages:

- Party planning (shop for items that you may need to cater for a braai for ten people etc)
- Monthly shopping planning (shop for items that you would usually buy in your monthly/weekly shopping)

Grocery store simulation

This is a great activity if you have the resources to be able to put it together. In creating your own mock grocery store you should collect empty boxes, cartons, bottles, tins of used food items. These can be placed on a few shelves in your department and labeled according to market norms. Variants of this activity could be used for assessment. If you want to assess a person's ability to budget according to constraints, then you may want to simulate a certain amount of money that can be used to purchase, for example, items needed for the usual weekend meals. If you want to assess a person's ability to work with money and change, you could provide a shopping list and require the MHCU to estimate how much money he would need to do the shopping. In addition, once the 'shopping at the grocery store' has been done you could ask the MHCU to tally what they have spent and work out how much change they should receive from the cashier.

For this activity the use of imitation money (in the appendix) can be used. If you are not able to create a simulated grocery store of actual items, you could collect pictures with prices of items and stick them up on a wall to act as your "grocery store".

C. Collateral information

Collateral information from the family is rather useful in obtaining additional information about ones money management and budgeting skills. You could pose similar questions to family members as mentioned under the interview section.

If MHCUs are permitted to have money whilst hospitalised you could obtain information from the nurses regarding how the MHCUs spend their money, if they are able to be responsible for their own money, what items they buy with their money from the tuck shop and so on.

D. Standardised assessments

The following assessments, or components thereof, designed by various authors may be of use to assess this item:

- Independent Living Scales
- Kholman evaluation of living skills
- UCSD performance-based skills assessment
- Personal and social performance scale

APPENDIX I

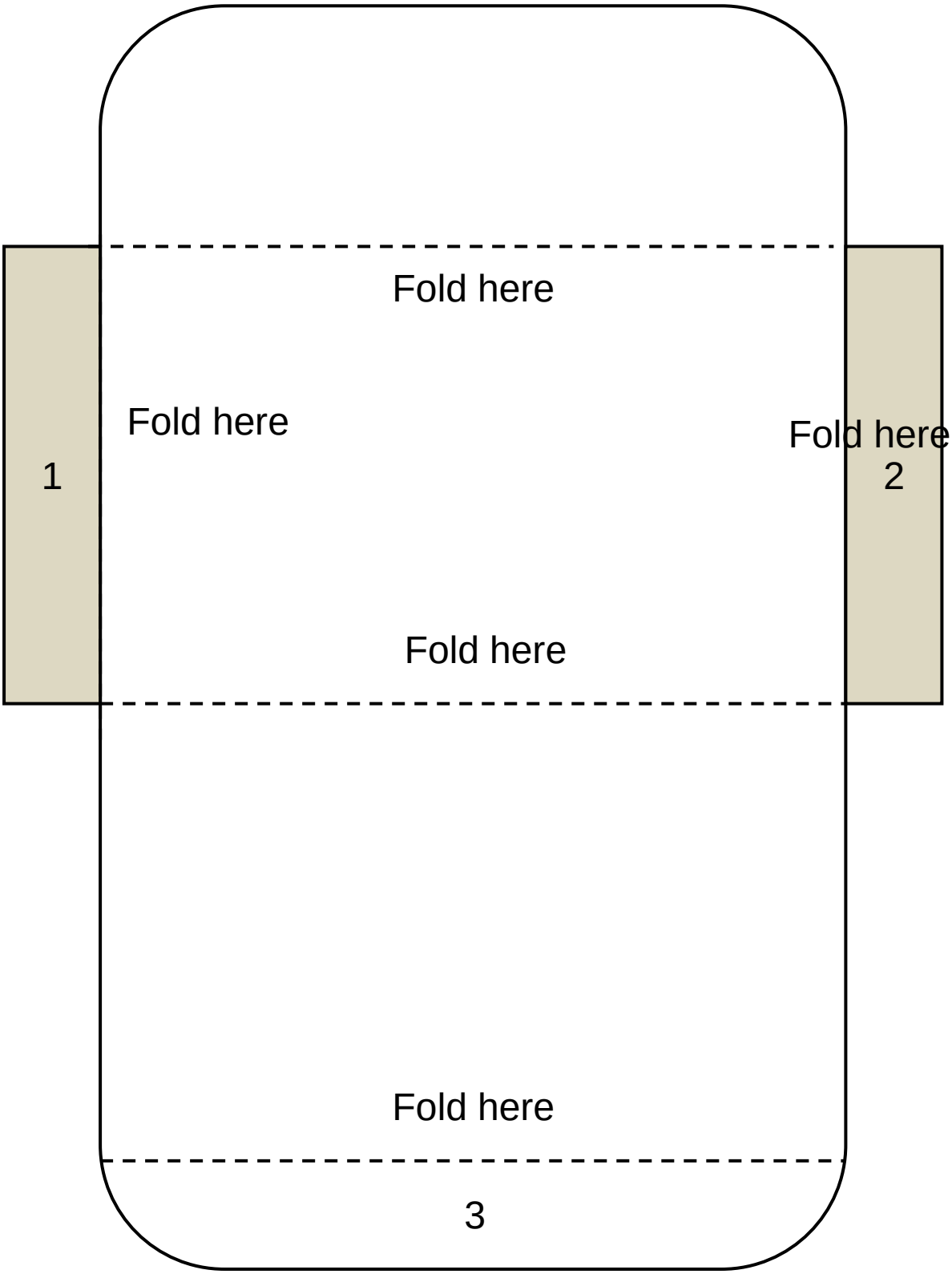
EXAMPLES OF THE APPENDIX SECTIONS FROM THE ACTIVITY PARTICIPATION ASSESSMENT

INSTRUCTIONS FOR MAKING A BASIC ENVELOPE

You will need:

1. Glue
2. Paper
3. Scissors
4. Ruler

Use the basic envelope template as a guide for sizing. You may want to enlarge or reduce the size of the template depending on what size envelope you would like to make.

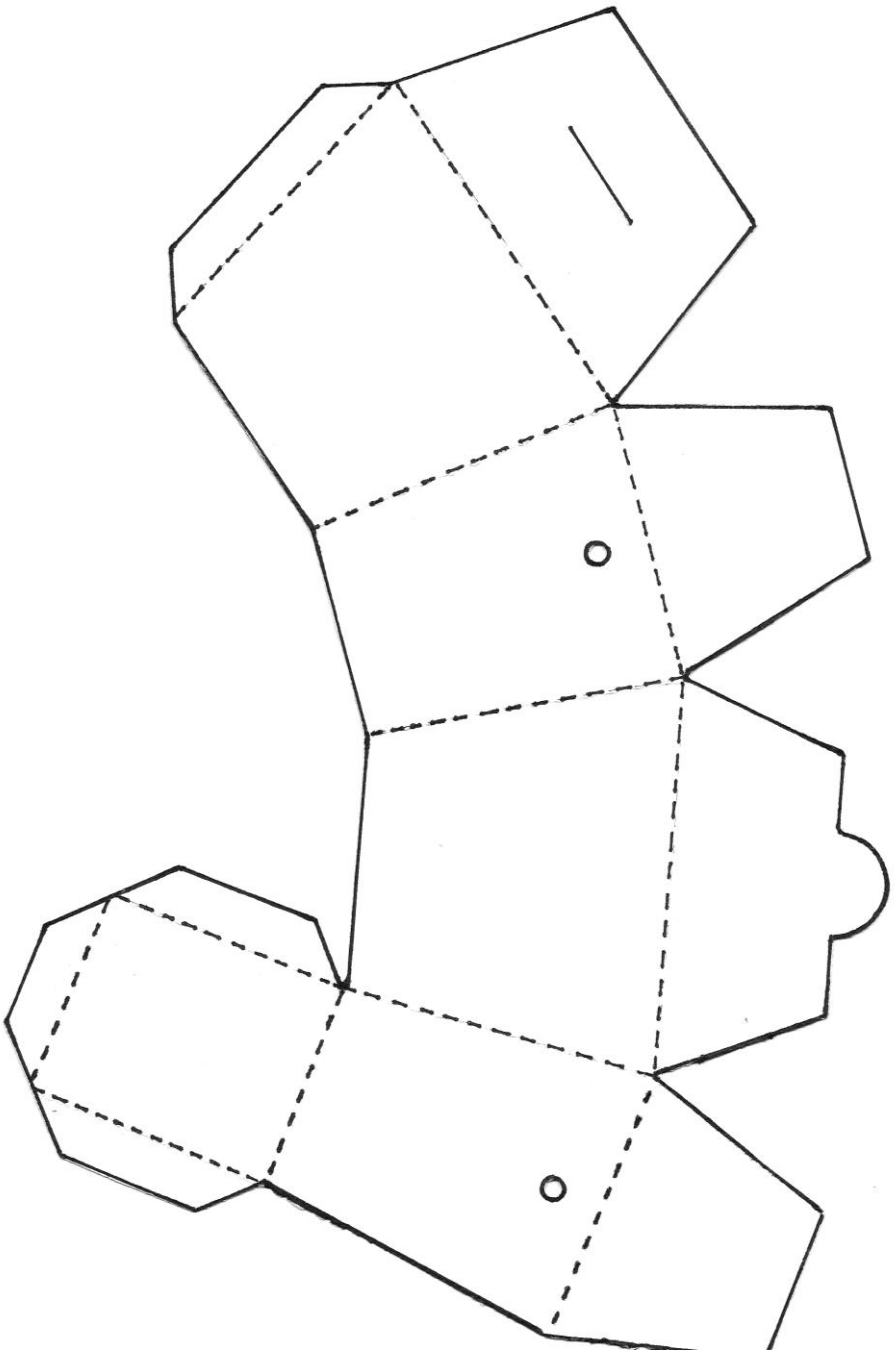

Fold here
Fold here
1
Fold here
2
Fold here
Fold here
3

INSTRUCTIONS FOR BOX MAKING

You will need:

1. Glue
2. Scissors
3. Ruler

Cut on the solid lines and fold on the dotted lines.



INSTRUCTIONS FOR LEATHERWORK

Tools

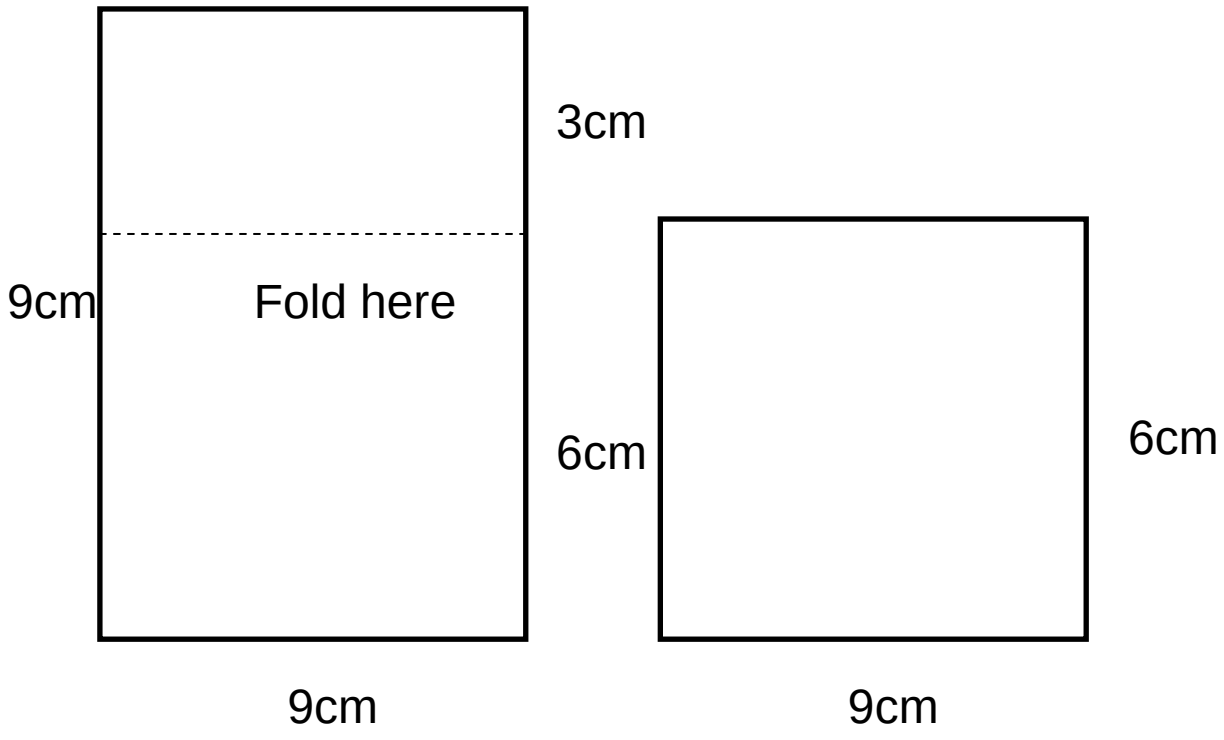
- Leather punch
- Key ring
- Ruler
- Pencil
- Scissors

Materials

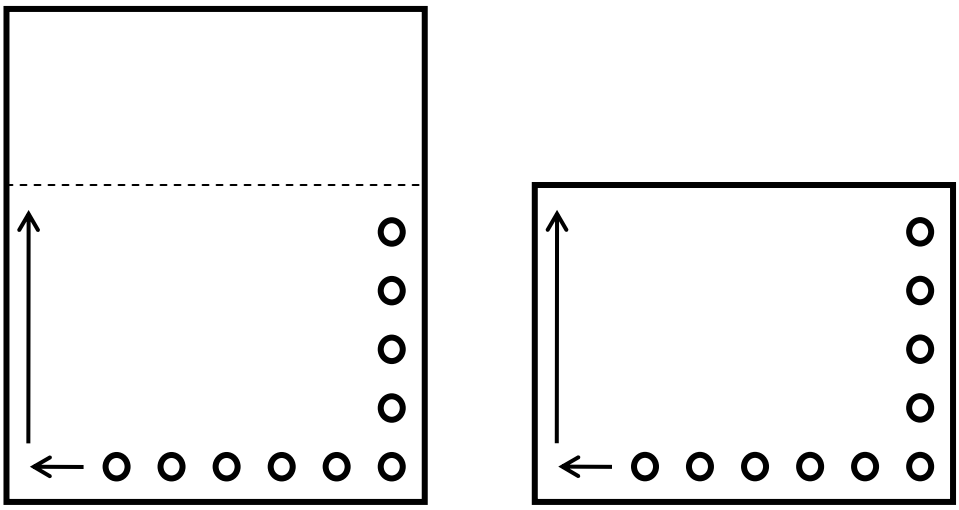
- Leather/vinyl
- Twine/rope/string
- Self adhesive Velcro
- Eyelets
- Press studs

COIN WALLET/PURSE

1. Cut out one piece of vinyl measuring 9 cm X 9 cm, and another measuring 6cm X 9cm



2. Now punch holes about 0.5 cm apart all the way around the sides and bottom edges of the vinyl

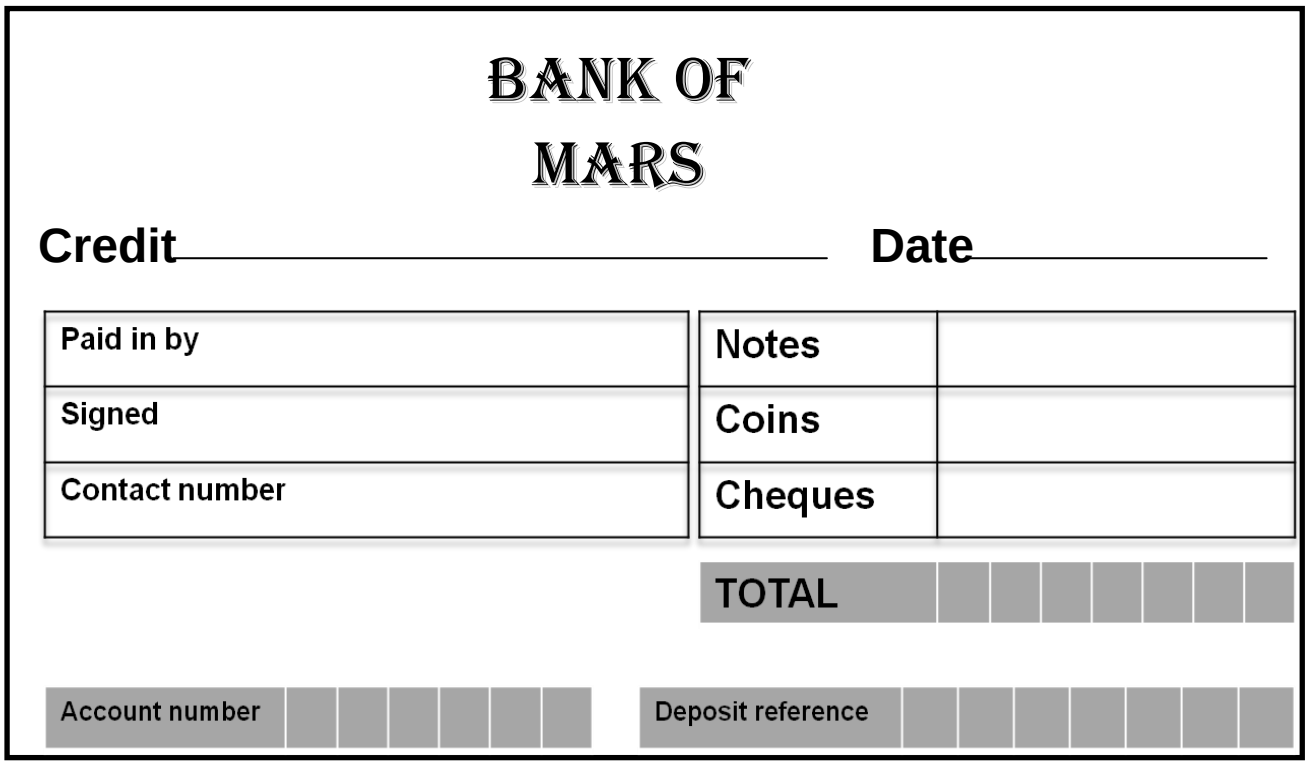


3. Place the two pieces on top of each other with the colourful sides (or side of the material that will form the outer side of your wallet) facing outwards.
4. Thread a string in and out of the holes to hold the two sides of the purse together
5. Now fold over the flap and align it with the point where you would like to place two press studs/velcro in each corner of the fold over flap in order for the purse to close
6. Put on the press studs using the leather work tool
7. Your wallet is ready to be used.
8. You can attach some string, or devise a carrying strap for your wallet if you so wish.

DEPOSIT SLIP

You should fill out the deposit slip with the following information:

Make a deposit to Kalahari books on 13th May 2010 of R350.00 cash (R250 in notes and the rest in coins) and R400.00 by cheque. Account number is 001122. Use the first three letters of your surname followed by 555 for the reference.



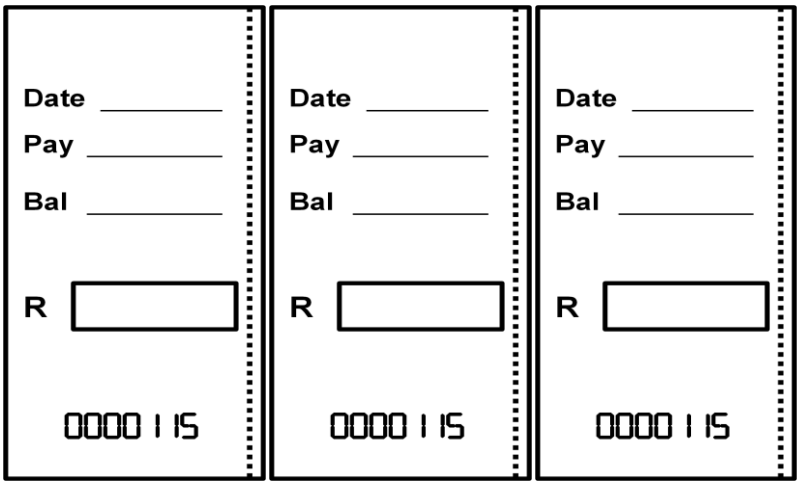
CHEQUE BOOK BALANCING

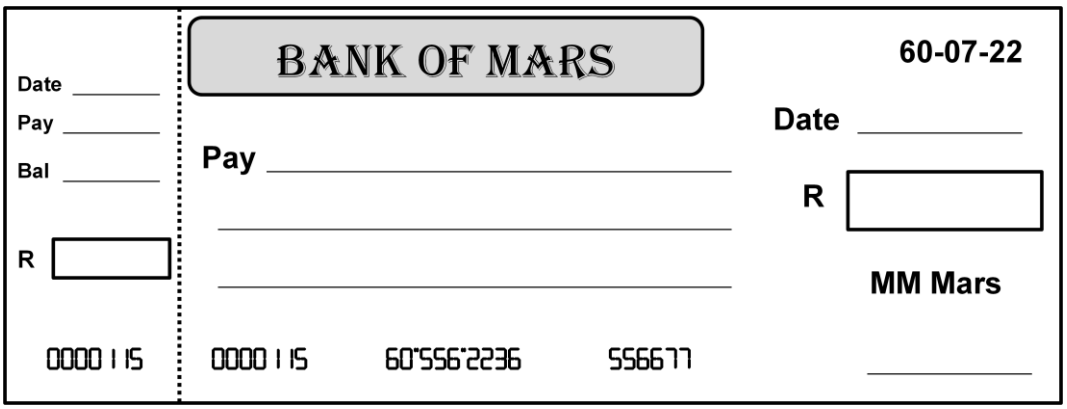
Opening balance in the cheque account was: **R2000.00**

Previous payments made by cheque include:

2010/03/26	Pick n pay	R354.88
2010/04/16	City council	R850.00
2010/06/01	Sports warehouse	R89.63
2010/06/18	The butcher	R500.95

Fill out the blank stubs that are missing from the cheque book and make a payment by cheque to Mr Simms for R95.30





For the evaluator: closing balance should be **R109.24**

TOMATO AND ONIONS WITH PILCHARDS

INGREDIENTS

2 tomatoes

1 onion

1 tin of pilchards

2 tablespoons of butter

METHOD

1. Chop the tomatoes and onion into blocks (dice them) on a chopping board
2. Open the tin of pilchards with the tin opener and chop up the pilchards into blocks on a chopping board
3. Place the frying pan on the stove with the butter in it
4. Fry the pilchards, tomatoes and onion in a frying pan on low heat for about 10min

MIELIE MEAL (PAP)

INGREDIENTS

2 Cups of mielie meal

3 cups of water

Pinch of salt for taste

METHOD

1. Place a pot on the stove top and put the water in it, allow it to boil
2. When the water is boiling turn the stove onto low heat
3. Add the mielie meal slowly and stir the mixture as you pour the mielie meal in
4. Add salt to taste
5. Keep stirring the mixture while it is cooking for about 10min
6. If the pap becomes too hard add some more water

YUMMY MEATBALLS AND VEGETABLES

INGREDIENTS

500g Mince

Flour for sprinkling

Salt and pepper

2 tablespoons of oil

Carrots

Beans

Potatoes

Water from the tap

METHOD

1. Wash the potatoes, carrots and beans well before preparation.
2. Cut the potatoes into squares, slice the carrots and chop the beans to your desired length.
3. Fill the pot up half way with water and put a dash of salt in it. Put it on the stove to boil while you do the other steps - but keep an eye on it, as it starts to boil you should add the potatoes, carrots and beans.
4. Shape the mince into 9 round balls. Roll them in the flour and sprinkle some salt and pepper on them.
5. Heat the 2 tablespoons of oil on medium heat and then put the meatballs in to fry. Turn them often. Fry for about 15 minutes.
6. Put the carrots, potatoes and beans into the boiling water in the pot to cook. Cook them for about 15 minutes, or until cooked. When you can easily insert a fork into the potatoes they are ready.
7. When all your ingredients have been added and cooked, you are now ready to eat.

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