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Making connections: Investigating the cross-disciplinary transfer of skills and knowledge in a BEd academic literacies course

by

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Protocol number: 2024ECE026M

A research report submitted to the School of Education, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Education (MEd) in Languages Specialisation

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MARCH 2025

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DECLARATION

I, HAFSA GUURE, student number 1844848, declare that this research report is my own original work. Wherever other resources have been used, they have been duly acknowledged. This research report is being submitted in partial fulfilment of the requirements for the degree of Master of Education (Languages specialisation) in the School of Education at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other university.

Signature: 

Date: 17/03/25

ACKNOWLEDGEMENTS

"وَمَا تَوْفِيقِي إِلَّا بِاللَّهِ" (Quran 11:88) - My success is only through ALLAH (S.W.T.). Undoubtedly, I give all my thanks to the Almighty, ALLAH (S.W.T) who gave me life, health, and wealth and who has guided me in this research journey and has given me the strength to be able to complete this research. It is through His mercy and support I was able to complete this work.

This research report would not have been a success without the support of my supervisor, my family, and my closest friends.

My sincerest and deepest gratitude to my supervisor, Dr Ilse Fouche, whose invaluable guidance and support have been instrumental in the successful completion of this research journey. Her unwavering encouragement, availability and dedicated support throughout my postgraduate studies have been very instrumental in allowing me to persevere and successfully complete my research. I am especially grateful for her invaluable and insightful expertise, which has undoubtedly enriched my academic journey over the last three years. The knowledge and skills I have gained under the supervision of Dr Ilse will continue to contribute to my further studies and teaching.

I am forever indebted to my closest family members, my parents, Hassan Guure and Layla Mohamed; my wonderful siblings and my closest friends, whose unwavering support has been instrumental throughout this journey. Their constant encouragement, reminders to prioritise self-care, and belief in my potential have been a source of motivation and strength. It was through their constant support that I am who I am today.

To my beloved, Abdul Rahman, I am truly grateful to have met you and to have had your presence in my life as I was finalising my research report. You have encouraged me and loved me, and for your presence in my life, I am forever grateful.

Finally, I want to extend my gratitude to the participants who took part in my research study for sharing their experiences with me.

ABSTRACT

This research report investigates the extent to which first-year Bachelor of Education (BEd) students' transfer knowledge and skills gained in a first-year course called Literacy for SP/FET Teachers, and students' core courses, Becoming a Teacher (BAT) and Education I. The research also investigates which types of knowledge transfer occurred in students' learning and to examine whether students exhibited evidence of surface, deep and strategic approaches to learning. The participants of this study comprised 25 first- and second-year BEd students who are preparing to become Senior Phase (SP) and Further Education and Training (FET) phase teachers. By using a qualitative methodological approach, data was collected through students' individual written reflections and focus group interviews. Key findings reveal that students successfully applied several skills and concepts from the Literacy for SP/FET Teachers course to their core courses and students exhibited multiple types of transfer.

CHAPTER 1

This research report is organised as follows: Chapter 1 provides the introduction, background information on the rationale for conducting this research, the purpose, aims, objectives and research questions, as well as a description of the Literacy course on which the study is based. The theoretical framework is discussed in Chapter 2, while the literature review is presented in Chapter 3. The methodology is discussed in Chapter 4. The analysis of results and discussion are presented in Chapter 5. Finally, the limitations of this research, future recommendations and conclusion are provided in Chapter 6.

1.1. INTRODUCTION

Students often find the transfer of knowledge from one context to another highly challenging (Hajian, 2019). One of the aims of the educational system is to "ensure that learners can apply their acquired knowledge in various ways and under different circumstances" (Hajian, 2019, p. 94). This means that students should be able to use and apply the knowledge and skills they acquire in one course to their other courses – an important skill if they are to eventually draw on all the knowledge and abilities acquired at university in the new context of the workplace.

Students' transition from high school into higher institutions is challenging due to factors including the "changes in students' environment, such as unfamiliar academic tasks, new social networks and heightened academic competition" (De Clercq, Galand & Frenay, 2017, p. 40). This challenge is further complicated by the fact that academic literacy skills are not universally accessible (Retnaningdyah & Laksono, 2018). Retnaningdyah and Laksono (2018) emphasise that academic literacy practices are deeply influenced by sociocultural contexts, which can create barriers for students from diverse backgrounds. In other words, students' ability to transfer literacy skills effectively depends not only on individuals' efforts, but also on how well these practices align with their sociocultural experiences (Retnaningdyah & Laksono, 2018). As students are navigating through these new challenges, there needs to be emphasis on what students learn and how they can use what they have learnt in one course to apply to different contexts. In university, students engage with a variety of subjects and modules which require different academic competencies and outcomes.

As discussed above, entering into higher institutions can be challenging for students. A key difficulty identified by van Rooij, Jansen and van de Grift (2017) is that secondary education does not adequately prepare students for the interconnected way in which knowledge is organised at university level. They further argue that school subjects are usually taught in isolation which can lead to the compartmentalisation of knowledge (van Rooij, Jansen & van de Grift, 2017). This makes it difficult for students to see connections between their courses at university and as a result, they may struggle to transfer skills and knowledge across the different courses when they enter university (barriers to transfer are discussed in Chapter 3, Section 3.3).

Jackson, Fleming and Rowe (2019) argue that it is crucial that students, upon generating new knowledge, are able to subsequently derive significance from this learning by actively establishing connections with new situations that arise in diverse contexts. This study attempts to determine the extent to which first-year students doing a Bachelor of Education (Bed) degree are able to do just this. Understanding how students transfer knowledge and skills across their different courses is important. The transfer of knowledge and skills between subjects helps students connect ideas from different subjects which leads to a better understanding and a wider range of skills acquired. Research shows that the transfer of knowledge improves students' skills and prepares them for the workplace (Rafiq, Kamran & Afzal, 2014; Speed, Kleiner & Macaulay, 2014). Interdisciplinary learning involves combining knowledge from different subjects and helps students to think in new ways and develop stronger problem-solving skills (Boden, Borrego & Newswander, 2011; Holflod, 2023). This approach also allows for teamwork and this enables students from different fields to share ideas and improve their communication, social skills and how to communicate with people from different fields (Holflod, 2023).

The research focused on how students at the University of the Witwatersrand studying towards a BEd degree transferred knowledge and skills between a compulsory first-year course (Literacy for SP/FET Teachers, henceforth referred to as "Literacy") and two core courses (Becoming a Teacher [BAT] and Education I) that students studied during their first year. A key aspect of this research was to explore students' approaches to learning which could significantly influence their ability to transfer knowledge and skills between their courses. Students applying deep approaches to learning would aim to understand underlying principles and try to link the new information they learn to their existing knowledge (Asikainen & Gijbels, 2017, Biggs, 1991); whereas surface approaches to learning would entail a student focusing on details and parts of information learned to pass assessments which often leads to memorisation without

understanding (Lindblom-Ylanne, Parpala & Postareff, 2019; Biggs & Tang, 2008). Strategic learning, on the other hand, entails students having effective learning strategies that can help them achieve academic goals (George, Maung & Narayanam, 2023) (Students' approaches to learning are discussed in Chapter 3, Section 3.2). By analysing these approaches to learning, this research aims to assess their effectiveness in facilitating the transfer of knowledge and skills across students BEd courses.

1.2. BACKGROUND

My interest in the Literacy course began when I acted as a Writing Fellow on the course in 2022 while completing my Honors degree. While taking on this role, I provided students with feedback on their formative written submissions. In 2023, I also worked as a tutor on this course. In this role, I taught tutorial classes and provided students with feedback on their large assessment tasks. I resumed my role as a Writing Fellow in 2024 while starting my Master's degree.

For my Honours research in 2022, I explored how students in the Literacy course perceived and experienced collaborative learning within the process of action learning. That study aimed to explore how students perceived and experienced collaborative learning within the pedagogy of action learning. Focus group interviews held that year provided valuable insights into students' experiences. Focus group interviews held revealed that students engaged in collaborative learning, and they began making connections between their Literacy course and their other core BEd courses, such as BAT and Education I. This recurring theme of transfer – how students apply knowledge and skills across different subjects – parked my interest in further investigating this. Hence, this research report aims to determine the transfer of knowledge and skills gained in three main subjects in students' first year. Are students able to see connections between the knowledge and/or skills gained across their first-year subjects? And how do they apply the knowledge and skills they gained in their first year across their courses?

Moreover, contemporary literature concerning the theory of transfer has predominantly focused on the transfer of knowledge and skills between higher educational institutions and the workplace, rather than between courses within universities themselves (Fleming, Rowe & Jackson, 2019; Jackson, Fleming & Rowe, 2021; Prince, Burns, Lu & Winsor, 2015; Garraway,

Volbrecht, Wicht & Ximba, 2011). Hence, one of the objectives of this research is to contribute to the existing body of literature and data regarding the transfer of knowledge and skills across different subjects within the South African university context.

1.3. AIM, OBJECTIVES AND RESEARCH QUESTIONS.

The aim of this research was to determine students' awareness of transferring of knowledge and skills gained in students' first year at BEd level. Specifically, it considered how knowledge and skills form the Literacy course are transferred to their two core courses (BAT and Education I), and to a more limited extent, how knowledge from these two core courses are transferred to the Literacy course. This research project focuses on these three courses because these are the core, compulsory courses that all first-year students studying towards their BEd degree need to complete.

This study has two objectives, namely to:

1. determine the extent to which students are aware of and believe they apply the knowledge and abilities gained in the Literacy course to their two core subjects (BAT and Education I), and vice versa;
2. identify and categorise the types of transfer evidenced in students' written reflections and focus group interviews; and
3. examine evidence of deep, surface and strategic approaches to learning as demonstrated in students' written reflections and focus group interviews.

My research questions are as follows:

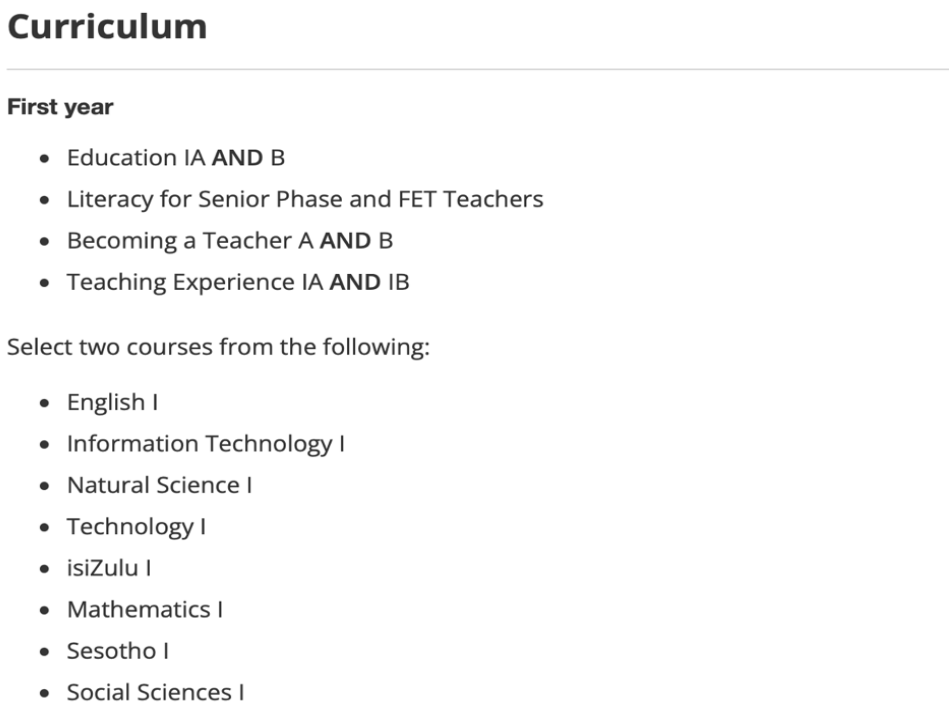
1. To which extent are students aware of, and believe they apply the knowledge and abilities gained in the Literacy course to their two core subjects (BAT and Education I), and vice versa?
2. What are the types of transfer that are evidenced through students' written reflections and focus group interviews?
3. What evidence is there of deep, surface, or strategic approaches to learning from students' written reflections and focus group interviews?

1.4. THE BEd CURRICULUM AT FIRST-YEAR LEVEL

The Literacy for Senior Phase and FET Teachers course is a compulsory first-year BEd course for students who are studying towards becoming senior and FET phase teachers. In addition, BEd students are required to have two major subjects in which they wish to specialise. First-year students at Wits could choose two major subjects from the following options in 2024, when this study was conducted (LO has since been replaced by Robotics): Mathematics, English, isiZulu, Sesotho, Life Orientation, Natural Science, and Social Science. In addition to the Literacy course which is a compulsory course, students are also required to complete two core subjects. These subjects are called Becoming A Teacher (BAT) and Education 1. Figure 1 shows the subjects that students are required to complete during their first year. The first three bullet points show the compulsory courses that students need to complete during their first year. The fourth bullet indicates a Teaching Experience (TE) practical that students do in their third term of study each year. The remaining eight bullets show the subjects available for students to choose from for their two major subjects.

Figure 1

Students' first year courses



Note. Adapted from BEd Senior Phase Teaching—Wits University. (n.d.). from https://www.wits.ac.za/course-finder/undergraduate/humanities/bed-senior-phase-teaching/

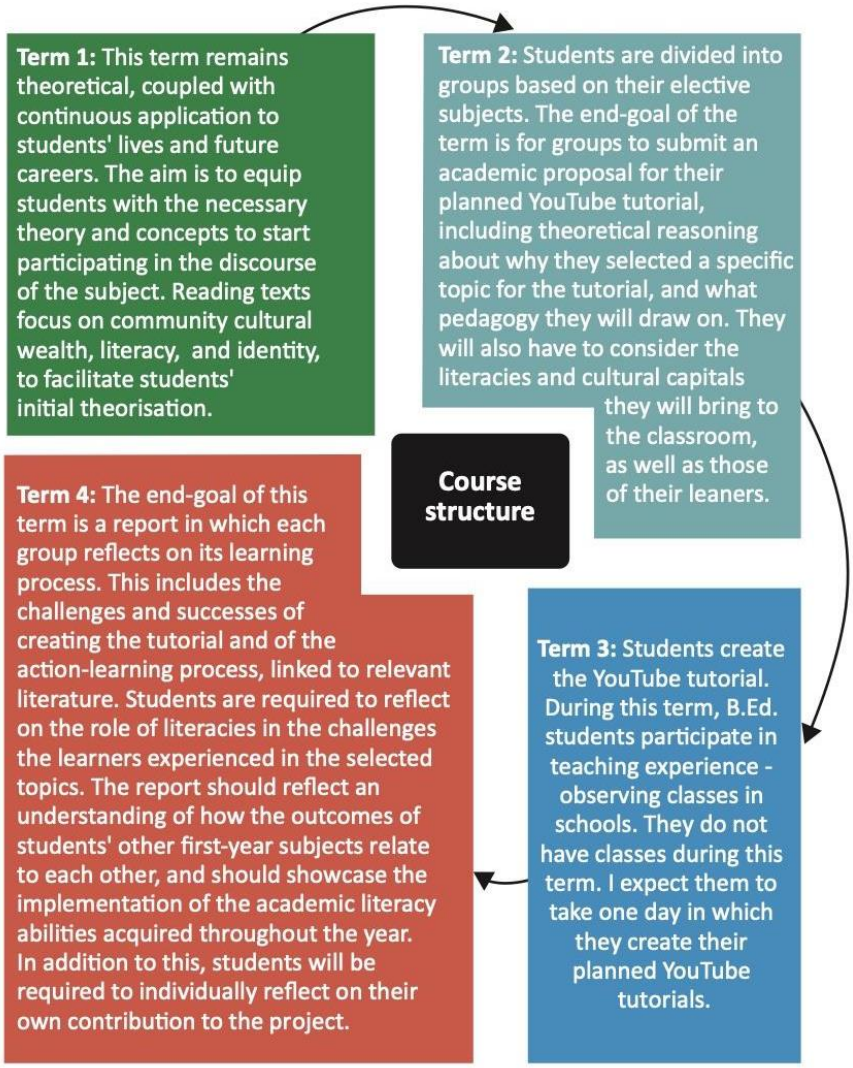
1.5. A DESCRIPTION OF THE LITERACY COURSE

The aim of the Literacy course is twofold. Firstly, it aims to equip students with the academic literacy abilities they will need to more successfully engage with their other first-year subjects, as well as with subjects in subsequent years. Secondly, it aims to familiarise students with knowledge around the concept of literacy and situated literacies, to better equip them in their future careers as teachers.

In an effort to teach the subject within a situated literacies framework and to show students the relevance thereof for their future careers, the subject is built around a project. In the first two teaching terms, students work towards creating a YouTube video where they teach a concept from one of their two major subjects to students in the SP/FET phase (Grades 8-12). In preparation for creating these YouTube videos, , students are 1) equipped with theoretical and practical knowledge around literacies and academic literacy, and 2) are required to write a proposal in which they outline how and why they would carry out the YouTube video projects that they had to undertake. Within the genre of the proposal, students are expected to implement all the literacy and academic literacy-related knowledge and skills which were worked on in the first half of the year. The proposal students are required to complete consist of the following sections: Abstract, Topic and Rationale, Introduction, Literature Review, Proposed Pedagogy, Conclusion and References. During the first term of the course, students are introduced to concepts which can be categorised under the New Literacy Studies. During the second term, students work collaboratively in small groups, integrating concepts that have been introduced to them in Term 1 in preparation for the YouTube videos that students will create in an attempt to explain concepts from various courses to school learners. The final term involves students' reflections on various aspects of their group projects. This includes reflecting on the effectiveness of the YouTube videos upon their completion through writing reflective reports which they receive feedback on. Students are also required to reflect on their own experiences as well as the experiences of those around them (Fouche, 2023). Figure 2 illustrates how each term of the course is structured.

Figure 2

Structure of the Literacy course



Note. Adapted from *Pre-service teacher investment through dialogic action learning*, by Fouché, I. 2024, p.3, 15(1).

There are many new theoretical concepts and academic literacy skills that students are introduced to in the literacy course. These are some of the concepts that were analysed from students written reflections and focus groups to see how well students apply what they have learned in this course to their other courses. This data is analysed in Chapter 5.

The following are the theoretical concepts that were covered in the Literacy course:

- Community cultural wealth
- Identity
- Literacy

- Academic literacy
- Literacy events
- Literacy practices
- Domains
- Discourses
- Ideologies

The following are the academic literacy skills that students developed in the Literacy course:

- Reading strategies
- Referencing skills
- Academic integrity
- Academic writing skills, including:
    - Analysing task words
    - Cohesive and coherent writing
    - Paragraph and essay writing
    - Structuring introductions and conclusions
    - Defining key terms
    - Writing effective thesis statements
    - Academic argumentation

Jackson, Fleming and Rowe (2019) assert that setting clear learning goals and objectives motivates students and facilitates knowledge transfer. Additionally, receiving consistent feedback coupled with support from supervisor, mentors and peers enhances the learning process (Jackson, Fleming, and Rowe, 2019). Setting clear learning goals and objectives as discussed above is important, and the Literacy course has set goals and objectives for what skills and knowledge students need to gain throughout their first year of studies. The aims of the literacy course include:

- "Analyse and evaluate the links between language, literacy, culture and identity in the South African context, by understanding basic concepts pertaining to literacy studies;
- Read for academic purposes across the relevant disciplines in the BEd senior phase and FET phase teaching curriculum, analysing academic and non-academic texts; and
- Write for academic purposes across the relevant disciplines in the BEd senior phase and FET phase teaching curriculum". (Fouche, 2024)

The Literacy for Senior phase and FET students course is a compulsory course for all first-year BEd students. There were 429 students who were registered for the course in 2023 and 432 students enrolled in the course in 2024. Students were divided into groups of between 40 and 45 students for weekly two-hour tutorials (thus, approximately 10 ten tutorial groups in total). Students have different majors and were grouped into the different tutorial groups according to their majors, to allow for discipline-embedded instruction during tutorials. Embedded instruction became particularly important during the second term of the course, where students were required to create an instructional YouTube video for high school learners, within a topic in one of our students' major subjects. To do so effectively, students within the same tutorial group had to share the same elective major subjects, as far as possible.

This chapter provided an overview of this research. It provided the introduction and outlined the background, purpose, aims, objectives and research questions. The Literacy course was introduced as a key component of the BEd degree that this research is based on further outlining the role of this course in equipping students in the BEd degree with academic literacy skills.

CHAPTER 2: LITERATURE REVIEW

2.1. THEORY OF TRANSFER

As students transition into the university context, they encounter a new and challenging academic environment that demands from them certain skills and capabilities (Parker, Austin, Hogan, Wood & Bond, 2005). Great importance is placed on providing students in higher education with knowledge and skills that provide opportunities for authentic learning through solving real-life problems (Fleming, Rowe, & Jackson, 2019). The critical skills for graduates to develop during their studies include communication, problem-solving, teamwork, analytical proficiency, technical proficiency, adaptability, and flexibility in diverse contexts (Fleming et al., 2019, 2021). Needleman (2021) similarly highlights key skills for university students, including academic writing, reading, critical thinking, communication, time management, and soft skills such as self-motivation (Needleman, 2021). When students acquire these skills and knowledge at university, the expectation is that students will be able to apply these to other contexts; however, there is not always proof that this does, in fact, happen. There is great importance placed on the transfer of knowledge as it is seen as a process that facilitates "the storage, processing, remembering and retrieving of information" (Leberman, McDonald & Doyle, 2006, p. 3). Furthermore, when students acquire knowledge in educational settings, they should be able to derive connections from their learning and apply what they have learnt effectively in different contexts, such as the workplace (Fleming, Rowe & Jackson, 2021; Oliveira, 2017). For example, students should be able to transfer and apply the knowledge and skills they gain in their BEd degree to in their future careers as practicing teachers.

The transfer of knowledge and learning between university subjects involves applying knowledge and skills gained in one subject to another (Hajian, 2019; Okunlola, 2023). The transfer of knowledge and skills is defined as the ability to access and use intellectual resources in situations and contexts where they are relevant (Lauder, Reynolds & Angus, 1999, p.480). Effective transfer of knowledge and skills occurs when students are able to comprehend information rather than merely reciting it (Sajko, 2020, p. 33). According to Pan and Rickard (2018), transfer includes "the productive use of prior learning in a novel context" (p. 6) where a novel context can encompass any situation that differs in some aspect from the original setting in which the initial learning occurred (Pan & Richard, 2018). Transfer of knowledge and skills

is successful when students are able to connect and adapt knowledge and skills for different purposes and in different contexts (Leberman, McDonald and Dolye, 2006).

According to Leberman, McDonald, and Doyle (2006), transfer plays an important role in learning as it involves both the learning process and its outcomes (p.3). They argue that each time learning takes place, previous knowledge serves as a building block; it forms the foundation for all future learning. Sajko (2020) discusses the impact of prior knowledge to the transfer of knowledge, suggesting that students who have a strong foundation in a particular subject will be more likely to successfully apply the knowledge they have in new contexts. This is also reinforced by the National Research Council (NRC, 1999) which states that "Without an adequate level of initial learning, transfer cannot be expected" (NRC, 1999, p. 4). The transfer of knowledge from one situation to another is facilitated when an individual can use patterns to recall useful information (Sajko, 2020). For instance, in the Literacy course (discussed in Chapter 1, Section 1.5), students are repeatedly exposed to the skill of referencing throughout the first semester of their course. Practising and engaging with different learning materials repeatedly can help students retain and recall information better (Husin & Azmuddin, 2024). Students are shown examples, instructional videos, and have in-person tutorials where they learn and practice to reference. This skill is reinforced for approximately nine months, as they are required to apply this skill whenever they complete a writing task. In this case, when they need to use this skill and the knowledge of referencing in other courses, students may find it easier to transfer this skill.

Additionally, The National Research Council (1999) states that knowledge transfer is hindered when teachers cover too much material too quickly. This may occur when lessons are not structured properly and are presented at a fast pace, they may learn disconnected pieces of information. This is because students learn only disconnected facts that lack organisation and connection which then makes it difficult for them to form a cohesive understanding of the work (The National Research Council, 1999). If this is the case, then this leads to a lack of transfer as well as surface approaches to learning (discussed in Section 3.2 below).

Pea (1987) argues that the transfer of skills and knowledge is often limited by the way in which the curriculum divides subjects. Pea (1987) suggests that for students to apply their knowledge effectively, "Greater curriculum synergy is needed so students may acquire and apply knowledge in an integrated manner that matches the demands of everyday problem solving"

(p.3). This means that instead of learning subjects in isolation, students should be able to see connections between their subjects and that subjects should not be taught in isolation to other subjects. This is evident in the Literacy course. The learning outcomes of the course includes to "Read for academic purposes across the relevant disciplines in the BEd senior phase and FET phase teaching curriculum, analysing academic and non-academic texts; and, to write for academic purposes across the relevant disciplines in the BED senior phase and FET phase teaching curriculum". This shows that the course's learning outcomes not only emphasise reading and analysing academic and non-academic texts but also writing for academic purposes across the various disciplines within the BEd senior and FET phases. By connecting these skills to the broader teaching curriculum, the Literacy course shows how having an integrated curriculum can help students' ability to transfer their knowledge and skills across their different subjects and apply it in different contexts. Students might then then also be able to see the connections between their subjects which would facilitate the transfer of knowledge and skills.

The transfer of knowledge and skills between university courses plays an important role in improving students' learning and their academic performance. When students apply what they have learned in one course to another successfully, they are more like to achieve better learning outcomes (Howah & Gide, 2022). This means that when students are able to take the knowledge and skills they have learned in one course and apply it to another course, it is likely to improve their overall academic performance. Transfer between courses means that students apply the concepts that they have learned in one course to another, which promotes deeper approaches to learning (see Section 3.2) and better retention of knowledge and skills (Howah & Gide, 2022). Additionally, transfer encourages problem solving and innovative thinking (Enakrire, 2021).

In their analysis on the transfer of learning, Perkins and Salomon (1999) identified several conditions for the transfer of knowledge and skills to take place. The first aspect that they refer to is "explicit abstraction" where transfer is dependent "on whether learners have abstracted critical attributes of a situation" (Perkins & Salomon, 1999, p. 7). This means that the effectiveness of transferring knowledge and skills from one context or situation to another, depends on whether students grasped the important aspects of the original context or situation. Students who have understood the critical attributes in the original context will be more likely to use and apply the knowledge and skills in new contexts. In the Literacy course, students are introduced to many new concepts and skills. The challenge is to determine how and whether

students are able to apply the knowledge and skills they gain in their other courses to the Literacy course, as well as if they are applying what they have learned in the Literacy course to their other courses. This process directly ties to explicit abstraction, as it involves consciously recognising underlying principles and applying them across academic contexts. Another condition of transfer that was identified by Perkins and Salomon (1999) was "arousing mindfulness". Mindfulness involves being fully aware and alert in the present moment, actively engaging with one's activities and surroundings. This is contrasted with a passive and reactive state where actions and thoughts occur automatically, without deliberate awareness or mindfulness (Perkins & Salomon, 1999). The conception of an arousing mindfulness can be linked to the concept of a deep approach to learning (Biggs; 1991) as they both promote meaningful interactions with the learning experience, allowing for a deeper understanding of what needs to be learnt. The literacy course promotes these approaches by encouraging students to engage actively with academic texts through structured reading strategies, reflective writing tasks, and collaborative group projects; this is discussed in more depth in Chapter 1, Section 1.5.

Balwin and Ford (1998) designed a model of the transfer process. This model encompasses three components: "learning, retention and application". The first component, *learning*, assesses if the student has effectively understood the content that needs to be transferred (Rausch, 2023). The goal of learning is for students to be able to apply the knowledge and skills they have acquired to real life situations (Okunlola, 2023). The second component, *retention*, evaluates if this knowledge has been maintained over time. Lastly, *application* considers whether the knowledge was successfully utilised in different contexts (Rausch, 2023). The literacy course in principle tries to adhere to the transfer model. During the first few weeks of the course (Figure 4 in Chapter 4 shows the Literacy course structure and how each term of the course is structured), students are exposed to the first component, namely learning, by being introduced to theoretical literacy-related concepts such as 'multiple literacies', 'community cultural wealth' 'identity', 'domains' and 'ideologies'. They also develop essential skills like referencing, reading and writing academic texts and paragraph writing. As the course progresses, the retention component is assessed through quizzes and weekly tutorial tasks that students need to complete. Finally, students apply their knowledge by creating a proposal for a YouTube tutorial targeted at SP/FET learners where they demonstrate their ability to put what they have learnt into practical use. In addition, after creating this YouTube tutorial, students go

through a process of reflection activities designed to further draw on their ability to apply their learning.

For effective transfer to occur, students need to see links between their courses. Cross-disciplinary connections play an important part in enhancing knowledge transfer (Chen & Din, 2024). Chen and Din (2024) have emphasised that integrating different academic fields into a curriculum can expand students' learning experiences and strengthen their cognitive capacities (Chen & Din, 2024). By making connections between different domains, students can transfer knowledge and skills across disciplines, which is essential in the interconnected world. The Literacy course integrates various academic skills (such as academic writing, referencing, and reading strategies) which are essential across multiple subjects. For example, students use literacy skills when engaging with prescribed readings in their Education courses or when applying referencing techniques in their major subjects. Additionally, the YouTube video project requires students to synthesise literacy skills with subject-specific content, reinforcing their ability to transfer knowledge across disciplines. This aligns with Chen and Din's (2024) argument that cross-disciplinary learning strengthens cognitive capacities and enhances knowledge transfer (Chen & Din, 2024).

The learning environment also significantly influences the transfer of knowledge and skills. Zhang (2024) argues that the physical and social dynamics of educational settings can affect peer relationships and collaboration, which are critical for effective learning to take place (Zhang, 2024). A supportive learning environment that encourages social interaction can enhance students' ability to transfer knowledge, as they learn from one another and engage in collaborative problem-solving. Additionally, active participation plays a crucial role in the learning process (Zhang, 2024). Research by Doolan and Gilbert (2016) indicates that social participation is essential for co-creating knowledge and facilitating deeper learning experiences (Doolan & Gilbert, 2016). This aligns with the findings of Biele, Rieskamp and Krugel (2011), who discuss how social learning strategies can enhance the transfer of knowledge by allowing students to engage with and apply concepts in a social context (Biele, Rieskamp & Krugel, 2011). The Literacy course emphasises the importance of a supportive learning environment, which allows for effective knowledge transfer. Group-based activities and collaborative projects, such as the YouTube video assignment which students need to create (discussed in Chapter 1, Section 1.5), create opportunities for peer interaction and collaboration and this aligns with Zhang's (2024) argument that peer relationships and collaboration significantly

influence learning outcomes (Zhang, 2024). By engaging in these collaborative tasks, students can enhance their ability to transfer knowledge and skills as they learn from one another and apply these concepts in their classrooms and other courses. Furthermore, research by Doolan and Gilbert (2016) highlights that social participation is crucial for creating knowledge and facilitating deeper learning experiences, a principle that is clearly evident in the Literacy course. As students work together on projects, they engage with the material in meaningful ways, which deepens their understanding and reinforces their ability to transfer skills to other academic contexts. This is also in line with the findings of Biele, Rieskamp, and Krugel (2011), who note that social learning strategies help students apply concepts in a social context, which supports the transfer of knowledge across different disciplines (Biele, Rieskamp & Krugel, 2011).

2.2. STUDENTS' APPROACHES TO LEARNING (SAL)

In understanding the ways in which students are able to transfer knowledge and skills between subject and courses, Students' Approaches to Learning (SAL) needs to be understood. Approaches to learning describe how students view their own methods of learning in a particular educational context (Evans, 2014, p. 2). SAL refers to the ways in which students engage with their studies, as well as the learning strategies and approaches they adopt to achieve their goals (Lindblom-Ylanne, Parpala & Postareff, 2019, p.2184). Three approaches to learning, namely the deep approach to learning which focuses on deep learning and understanding of courses, the surface approach to learning which focuses on rote learning and strategic approaches to learning are discussed below.

Pereira and Costa (2017) argue that "education should prepare students to identify opportunities and to assume responsibilities and live experiences throughout their lives" (p.3). To do this, students need to be able to engage in practices within the educational setting while applying what they have learned to various contexts.

The surface approach to learning describes the ways in which students practice rote learning strategies "such as memorising and reproducing the learning material and intentions to simply learn facts in order to pass a course" (Lindblom-Ylanne, Parpala & Postareff, 2019, p. 2184). According to Sajko (2020), when students enter university, they tend to partake in surface

approaches to learning and rote memorisation of course content which may give the illusion of deep understanding without truly grasping the underlying concepts. This leads to the belief that complex concepts have been learned and can be applied elsewhere (Sajko, 2020). However, "the content is not easily retrieved from memory because it was not reflected upon or learned in depth" (Sajko, 2020, p. 33). Furthermore, students do not see "relationships between ideas or concepts, i.e. their knowledge is fragmented" (Lindblom-Ylanne, Parpala & Postareff, 2019, p.2184). This becomes problematic when it comes to university students as they are expected to understand what they learn in courses and are required to use the knowledge and skills they gain in other contexts. Shah, Yadav, Sharma, Yadav, Sapkota, Jha and Islam (2016) contend that students may adopt approaches to surface learning due the demanding workload at university. The higher the educational demand, the more that students may resort to lower cognitive-level activities and learning rather than engaging deeply with their studies (Shah, Yadav, Sharma, Yadav, Sapkota, Jha & Islam, 2016).

The Literacy course aims to facilitate the acquisition of skills and knowledge instead of the memorisation of content so that students are able to apply these skills and knowledge across their other subjects; therefore, deep approaches to learning are required in this course. For the demonstration of learning to occur, one needs to be able to display that learning at later stages (Perkins & Salomon, 1999). This means that the transfer of knowledge and skills needs to be evident. For effective transfer to occur in the educational context, students need to practice mindful transfer (Perkins & Salomon, 1999); they need to be aware of the similarities and differences in the knowledge and skills they gain in different contexts and how they can transfer these skills and knowledge effectively between their courses. This can only be done through engaging practices which involve deep approaches to learning. Mindfulness is described by Perkins and Salomon (1999) as a state of being fully aware and attentive to one's actions and surroundings, as opposed to acting passively, where thoughts and behaviours occur without conscious effort (Perkins & Salomon, 1999).

A strategic approach to learning is defined as students' abilities to organise their learning and study habits in an effective way and they are able to manage their time well (George, Maung & Narayanam, 2023). Students who adopt a strategic approach to their learning are able to "manage their time and learn what is expected to achieve the highest grade possible" (Tsey, Anane & Cobbinah, 2022, p. 178). George, Maung and Narayanam (2023) highlight that a strategic approach to learning is essential for acquiring high scores on assessments while a deep

approach is important for understanding and grasping content well. Deep approaches to learning signify active student engagement and purposeful interaction (Mystakidis, 2021) to truly understand and engage with the learning material in a meaningful way. This involves a focus on key elements and themes while engaging in practices that help students create a deeper understanding of the course materials (Asikainen & Gijbels, 2017, p. 207). Students who are engaged in deep approaches to learning see tasks as "thought-provoking" and they strive to understand concepts. They seek to apply their understanding and apply knowledge across different tasks (Biggs, 1991, p. 29). They focus on understanding and applying knowledge, rather than just memorising facts. Deep approaches to learning are central to the theory of transfer of learning because students are expected to have the abilities to showcase the competencies, knowledge and skills gained in educational settings when faced with new, unprecedented problems (Mystakidis, 2021, p. 991).

For successful transfer to occur, it is essential to grasp initial content with clear understanding (Galoyan & Betts, 2021) which means that in order for students to successfully apply knowledge or skills in one context, it is essential for them to have a solid and clear understanding of what was learnt and taught in the initial context. If this does not happen and students engage in surface approaches to learning including rote learning, it will be very difficult for them to use the knowledge and skills effectively in a new setting, be that in different courses or in the workplace (Shah, Yadav, Sharma, Yadav, Sapkota, Jha & Islam, 2016). Therefore, a deep and thorough understanding and grasp of the knowledge and skills gained in one setting becomes the foundation for effective transfer of what a student has learnt to apply or transfer to their other courses.

Understanding Students' Approaches to Learning (SAL) is essential for analysing how and why transfer does or does not occur in different academic contexts. In this research, the lens of learning approaches, namely the surface, deep, and strategic approaches to learning provide a framework for understanding the ways in which students engage with knowledge and how this engagement supports or hinders transfer. Students who adopt a surface approach are more likely to memorise information without understanding it deeply, which undermines their ability to apply that knowledge meaningfully in other subjects (Lindblom-Ylanne, Parpala & Postareff, 2019). In contrast, for those who adopt a deep approach, they tend to focus on meaning making, integration of ideas, and contextual understanding, all of which are essential conditions for successful transfer of skills and knowledge.

2.3. BARRIERS TO TRANSFER

Kaiser, Kaminski, and Foley (2013) emphasise that simply participating in a learning activity does not guarantee that transfer will take place. There are certain barriers to knowledge transfer. Barriers to transfer can arise before and after the learning process (Kaiser, Kaminski & Foley, 2013). Assuming that transfer happens automatically is also problematic (Lightner, Benander & Kramer, 2008). There are numerous barriers that can hinder transfer. Some of these include assessments that focus on recalling isolated facts rather than applying them in different contexts, insufficient practice in applying concepts to various situations and "a lack of interdisciplinary references in lectures" (Lightner, Benander & Kramer, 2008, p. 58). The Literacy course introduces many concepts such as community cultural wealth, identity, literacy, academic literacy, and literacy events and practices (see Chapter 1, Section 1.5). In addition, it covers skills which include reading strategies, referencing skills, academic integrity, and academic writing skills, which include analysing task words, cohesive and coherent writing, paragraph and essay writing, structuring introductions and conclusions, defining key terms, writing effective thesis statements and academic argumentation (discussed in Chapter 1, Section 1.5). Part of students' assessment in this course is to create a YouTube video (discussed in Chapter 1, Section 1.5) and the first step is for students to complete a proposal (discussed in Chapter 1, Section 1.5). In this proposal, students are expected to apply and transfer the skills and knowledge they gained throughout the semester in the Literacy course in completing their proposals. Lightner, Benander and Kramer (2008) identify a key barrier to transfer: assessments that focus on recalling isolated facts rather than applying knowledge in different contexts (Lightner, Benander & Kramer, 2008). This barrier is actively addressed in the Literacy course, where students are required to draw on knowledge acquired in the first term and apply it in the second and fourth terms. Rather than simply memorising facts, students revisit and retain their learning, applying it in progressively complex ways. By reinforcing prior knowledge across multiple terms, the course helps students develop a deeper understanding and apply their skills in different contexts, directly combating the issue mentioned (Lightner, Benander & Kramer, 2008).

More barriers are discussed by Kaiser, Kaminski and Foley (2013). These include entering a learning situation without foundational knowledge, lacking motivation or confidence during learning and receiving insufficient support (Kaiser, Kaminski & Foley, 2013). In the context of the Literacy course, these barriers may play a role in hindering students' ability to transfer

knowledge effectively. For example, new first-year students who are entering the course without much knowledge about how to reference or read academic articles may struggle to grasp more advanced concepts such as ideologies, literacy events or similar concepts which can make it difficult for them to apply their learning in later stages of the academic year. The lack of motivation or confidence may also be a barrier, as students who feel disengaged or unsure of their abilities may be less likely to actively participate in the learning process or revisit key concepts across different terms (Kaiser, Kaminski & Foley, 2013). This issue may be particularly prevalent in the early stages of the course when students are still adjusting to academic expectations and unfamiliar content. The Literacy course does not include explicit ways to assist and support student motivation and incorporating strategies to enhance motivation can be a valuable addition to the course to further improve the course.

Building on the barriers to knowledge transfer discusses above, there are other factors that can influence the effectiveness of transfer. Transfer of knowledge and skills can be influenced by factors including the time that is required to learn something, the amount of practice that is needed to master learning and "the way a problem is represented both in the learning task and the transfer task" (Galoyan & Betts, 2023, p. 172). Another factor that influences knowledge transfer is motivation (Patil & Kant, 2014); students must be motivated to share knowledge. The lack of motivation can affect knowledge transfer, particularly in settings where knowledge sharing is neither acknowledged nor rewarded (Patil & Kant, 2014). In the Literacy course, motivation is strengthened by having students engage in activities that require collaboration. Weekly group tasks are designed so that students can share what they have learned, and they conduct research together while applying their knowledge in collaborative settings (tutorials and small-group meetings outside the classroom). The aim of these weekly tasks is to encourage students to work in groups, share what they have learned and conduct research together.

The Literacy course introduces students to a few foundational academic literacy concepts and practices, such as community cultural wealth, academic writing, referencing, and reading strategies. These concepts are not only central to literacy itself but also serve as tools that shape how students approach learning in their other other courses. Learning approaches, such as surface, strategic, and deep learning, are influenced by the skills and mindsets taught in the Literacy course. For example, deep learning, which involves critical thinking and meaningful engagement (Mystakidis, 2021), is supported by the course's emphasis on analysing task words

and producing coherent, structured writing. According to transfer theory, learning is most effective when knowledge and skills acquired in one context are applied to new contexts (Leberman, McDonald & Doyle, 2006). In this case, the transfer of academic literacy skills from the Literacy course to other courses such as Education or BAT, depend on how well students internalise and adapt these practices. Thus, literacy, learning approaches, and transfer theory are interconnected: literacy provides the foundation, learning approaches influence how that foundation of what was learnt is built on, and transfer theory explains how this learning goes beyond the literacy course.

2.4. CCFOs

According to Pillay, Govender and Lachman (2018), South African higher education institutions follow the Higher Education Qualifications Framework (HEQF) which focus on developing discipline-specific learning programs based on several critical cross-field outcomes (CCFOs) (Pillay, Govender & Lachman, 2018). These outcomes reflect essential competencies and values that students are expected to develop during their studies in order to apply them in real world contexts (Pillay, Govender & Lachman, 2018). CCFOs are important life skills that students need to develop while they are studying so that they are able to apply these skills in real settings like the workplace (Roos, 2014; Pillay, Govender & Lachman, 2018). CCFOs are defined as the fundamental outcomes which guide and shape all aspects of teaching and learning (Roos, 2014).

CCFOs are divided into different outcomes. According to Pillay, Govender and Lachman (2018), the Critical Cross-Field Outcomes (CCFOs) are "split into seven critical and five developmental outcomes" (Pillay, Govender & Lachman, 2018) (Figure 3 shows a list of these outcomes). These outcomes emphasise the ability to identify and solve problems "using critical and creative thinking" (Pillay, Govender & Lachman, 2018, p. 124), as well as the importance of effective teamwork and collaboration during study sessions. CCFOs also promote self-organisation and responsible management of tasks and activities, while ensuring that individuals develop strong time-management skills. The CCFOs further highlight the need for "collecting, analysing, organising, and critically evaluating information" (Pillay, Govender & Lachman, 2018), which helps individuals make well-informed decisions. The CCFOs also stress the importance of effective communication, whether through oral, written, or visual

presentations (Pillay, Govender & Lachman, 2018). The responsible use of science and technology is another outcome of the CCFOs, ensuring that individuals engage with technological devices in a meaningful way (Pillay, Govender & Lachman, 2018).

The CCFOs provide a framework that aligns closely with the learning goals of the Literacy course. In the context of this research, the outcomes can be seen in how students develop essential skills such as critical thinking, effective communication, and information evaluation through their literacy work. These skills are crucial as students engage in reading, writing, and reflecting on their learning. For example, the CCFOs emphasise the importance of problem-solving and creative thinking (Pillay, Govender & Lachman, 2018), which students practice when analysing texts, developing arguments, and engaging in discussions. The communication outcome can also be linked to the literacy course as students strengthen their writing and speaking abilities through both oral and written reflections, helping them express their ideas more clearly and persuasively.

Additionally, the CCFOs' focus on collaboration (Roos, 2014) resonates with the group work and peer feedback aspects of the Literacy course. By participating in discussions and collaborative tasks, students gain experience working in teams, they complete tasks together and this helps them enhance their social and organisational skills. The outcomes that focus on self-management and critical evaluation of information directly tie into the process of drafting, revising, and assessing their own work in the Literacy course.

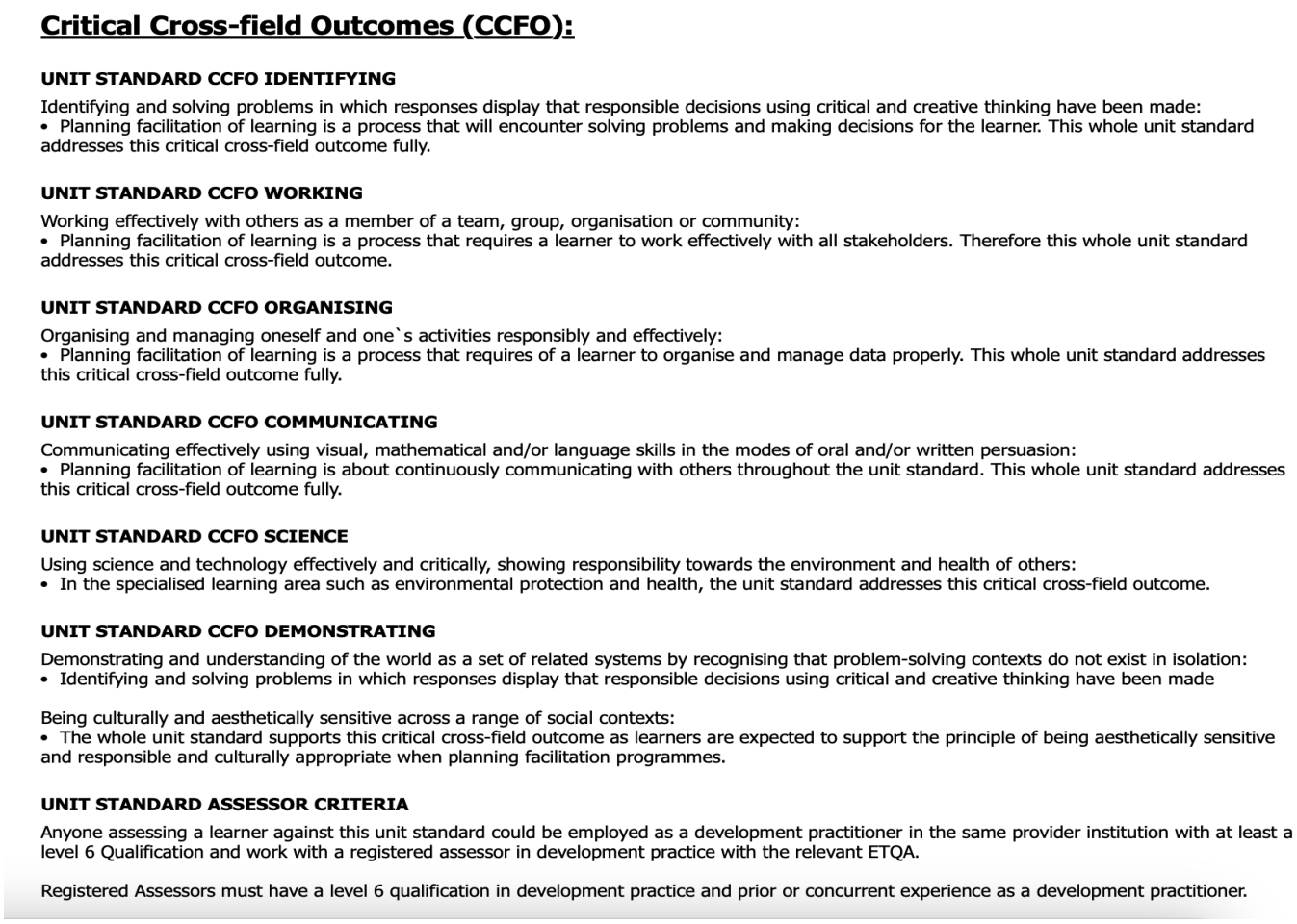
CCFOs refer to the essential skills and competencies that learners should develop to navigate various contexts and challenges effectively. These outcomes are particularly relevant in the framework of the Situated Learning Theory, which emphasises the importance of social participation and contextual learning in the acquisition of knowledge and skills (Meeuwissen, Steinert, Konopasky & Stalmeijer, 2024).

The CCFOs can align closely with the objectives of the Literacy course (mentioned in Chapter 1, Section 1. 5) because this course is designed to develop students' academic skills. The course aligns with the skills of CCFOs by emphasising collaboration, problem-solving, and critical thinking (Roos, 2014). For example, the YouTube project (discussed in Chapter 1, Section 1.5) requires students to work in groups to teach a concept to high school learners, reflecting the principles of Situated Learning Theory (SLT), which highlights the importance of social

participation and contextual learning (Meeuwissen, Steinert, Konopasky & Stalmeijer, 2024). The Literacy course also helps to strengthen students' academic literacy skills, including referencing, reading skills, and academic writing. These skills are essential not only for their success in the BEd program but also for their other courses as well as when they become teachers because they will need to communicate effectively and apply knowledge in different settings. In conclusion, the CCFOs serve as a dual role in this study: first, as indicators of effective learning (particularly in communication, critical thinking, and collaboration), and second, as analytical tools for examining whether and how students transfer these competencies to other university courses.

Figure 3

Critical cross-field Outcomes (CCFOs)



Critical Cross-field Outcomes (CCFO):

UNIT STANDARD CCFO IDENTIFYING

Identifying and solving problems in which responses display that responsible decisions using critical and creative thinking have been made:
• Planning facilitation of learning is a process that will encounter solving problems and making decisions for the learner. This whole unit standard addresses this critical cross-field outcome fully.

UNIT STANDARD CCFO WORKING

Working effectively with others as a member of a team, group, organisation or community:
• Planning facilitation of learning is a process that requires a learner to work effectively with all stakeholders. Therefore this whole unit standard addresses this critical cross-field outcome.

UNIT STANDARD CCFO ORGANISING

Organising and managing oneself and one`s activities responsibly and effectively:
• Planning facilitation of learning is a process that requires of a learner to organise and manage data properly. This whole unit standard addresses this critical cross-field outcome fully.

UNIT STANDARD CCFO COMMUNICATING

Communicating effectively using visual, mathematical and/or language skills in the modes of oral and/or written persuasion:
• Planning facilitation of learning is about continuously communicating with others throughout the unit standard. This whole unit standard addresses this critical cross-field outcome fully.

UNIT STANDARD CCFO SCIENCE

Using science and technology effectively and critically, showing responsibility towards the environment and health of others:
• In the specialised learning area such as environmental protection and health, the unit standard addresses this critical cross-field outcome.

UNIT STANDARD CCFO DEMONSTRATING

Demonstrating and understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation:
• Identifying and solving problems in which responses display that responsible decisions using critical and creative thinking have been made

Being culturally and aesthetically sensitive across a range of social contexts:
• The whole unit standard supports this critical cross-field outcome as learners are expected to support the principle of being aesthetically sensitive and responsible and culturally appropriate when planning facilitation programmes.

UNIT STANDARD ASSESSOR CRITERIA

Anyone assessing a learner against this unit standard could be employed as a development practitioner in the same provider institution with at least a level 6 Qualification and work with a registered assessor in development practice with the relevant ETQA.

Registered Assessors must have a level 6 qualification in development practice and prior or concurrent experience as a development practitioner.

Note. Adapted from *SAQA*. (n.d.). from https://allqs.saqa.org.za/showUnitStandard.php?id=110062

This chapter provided a review of the literature that was relevant to this study. The focus of this chapter was on the theory of transfer and students approached to learning (discussed in Section 3.2) This chapter highlighted how the transfer of knowledge and skills is essential for academic success of students, while emphasising that effective transfer requires deep understanding, active engagement with course materials and cross-disciplinary connections between courses. Barriers to transfer which may hinder students transfer of knowledge and skills were also discussed in this chapter (Section 3.3). Finally, the CCFOs were examined in relation to their role in the Literacy course (Section 3.4).

CHAPTER 3: THEORETICAL FRAMEWORK

3.1. SITUATED LEARNING THEORY

Situated learning theory, a theory that was first defined by Brown and Duguid (1989) and was later further developed by Lave and Wenger (1991), is a theory which emphasises the importance of how everyday learning takes place (Clancey, 1995, p. 49). According to Besar (2018), Lave and Wenger's (1991) theory of situated learning "draws together threads of earlier ideas from J.J. Gibson (1977) on the theory of affordances; L.S. Vygotsky (1978) on the theory of social learning; and Alan H. Schoenfeld (1985 and 2013) on the theory of mathematical problem solving, into a sustained conceptualisation of situated learning within communities of practice" (Besar, 2018, p. 50).

Situated learning theory is a theory that focuses on the process through which learning takes place in everyday situations (Clancey, 1995). It is a theory that emphasises on the importance of learning through social participation and interaction with others (Buldan, 2021) with a specific focus on authentic contexts (Chang, 2021; Zheng, 2010). Some of the principles which underpin Situated learning theory include legitimate peripheral participation, the context in which the learning takes place (Besar, 2018), social participation (Lave & Wenger, 1991), community of practice, knowledge as action and participation as well as authentic tasks (Chang, 2021; Zheng, 2010). Some of these principles are discussed below.

O'Brien and Battista (2019) argue that situated learning is a "process that occurs through legitimate peripheral participation in communities of practice" (p. 484). *Legitimate peripheral participation* is explained by Lave and Wenger (1991) as a process wherein newcomers engage in meaningful tasks within communities of practices where they gain "knowledgeable skills" (p. 29) for them to become "more engaged in more dynamic and complex activities and transition into the role of the expert" (Besar, 2018, p. 50). This concept can be directly reflected in the design of the Literacy course. In the Literacy course, first-year BEd students are immersed in academic literacy practices through collaborative activities, such as weekly group tasks and in-person tutorials (discussed in Chapter 4). These structured tasks and experiences allow students to begin as peripheral participants who are engaging in manageable tasks that

build foundational skills and then progressively build on these skills and take on more roles as they integrate and apply their learning across different courses.

According to Wenger (2009), "we all belong to communities of practice" (Wenger, 2009, p. 212*). A community of practice* refers to any group of people working together and who interact to learn from one another through shared practices and activities (Besar, 2018; Clancey, 1995). The Literacy course can be seen as a community of practice where BEd students can actively participate in tasks that can help them develop and apply Literacy skills (more about these skills are discussed in Chapter 1). For example, working on their collaborative YouTube videos (discussed in Chapter 1), they can engage in meaningful activities that may reflect Wenger's (2009) idea of learning through shared practices. This allows the students to grow from beginners to more confident and skilled teachers in practice.

Situated learning theory further emphasises the importance of context as well an authentic learning environment which "promotes knowledge acquisition" (Zheng, 2010, p. 470). This means that learning is most effective when there are authentic and real- world situations involved. The Literacy course is based on a project where students are required to create a YouTube video for school learners. In addition to the knowledge and skills that students are required to gain and implement during the year, students are also induced into a community of practice; one way in which this is done is through a strong reliance on group work (see Chapter 5, Section 5.1.4). At the end of the first semester, students are required to find ways in which they can help high school learners understand a particular concept. This challenges the students to use and apply the knowledge and skills that they have gained in the first two terms. Knowledge is not existent in an individual's mind, it is constructed and shared through interaction with others (Zheng, 2010; Besar, 2018); hence students need to apply the knowledge and skills they have gained and transfer that from the context they have learned into their projects. This project helps students transfer what they have learned to new situations and real life contexts, such as the classroom context.

3.2. TRANSFER OF LEARNING THEORY

Every instance of learning necessitates a degree of transferability. To assert that learning has occurred implies "that the person can display that learning later" (Perkins & Salomon, 1999,

p. 3). According to the transfer of learning theory (Perkins & Salomon, 1999), it is possible for transfer of knowledge to occur from one situation to another. “The prerequisite of transfer is that there needs to be a connection between two learning activities” (Zhuang, Duan, Zhu, Zhu & He, 2020, p. 1). The success of applying knowledge and skills gained in one course to other courses depends on the nature of transfer. Several types of knowledge transfer have been identified in the literature. They are a) low and high road transfer, b) positive and negative transfer, c) near and far transfer, d) horizontal and vertical transfer, and e) forward and backward transfer. These are discussed below.

3.2.1. Low and high road transfer

According to Hajian (2019), there are two distinct yet interconnected mechanisms for transfer, referred to as low road and high road transfer. Low road transfer occurs “when the target and original activities share a countless number of features” (Hajian, 2019, p. 96). For example, in the Literacy course, if students have achieved low road transfer for the skill of referencing, they are able to transfer and use this skill of referencing to their other courses, where the skill is also explicitly required. The countless number of features in this case can be understood as the common features between tasks that students are expected to complete in the Literacy course and their other BEd courses.

On the other hand, high road transfer takes place through the deliberate abstraction of general principles across various events in diverse contexts involving a conscious effort to identify connections among their structures (Hajian, 2019). An example of high road transfer for the Literacy course and students’ other courses would be that students are able to read and interpret academic texts and apply the skills of critically reading and writing academic texts in all their courses. In this case, students are not just using a specific formula for reading or writing academic texts, but they are required to demonstrate a deep understanding of how to read, analyse and write academically in different contexts.

3.2.2. Positive and negative transfer

Positive transfer occurs when previously learned knowledge or skills facilitate learning or performance in a new context (Perkins & Salomon, 1992; Leberman, McDonald & Doyle, 2006; Bardovi-Harlig & Sprouse, 2017). Negative transfer on the other hand is when previously

learned knowledge interferes with learning or performance in a new context (Perkins & Salomon, 1992; Leberman, McDonald and Doyle, 2006). If a transfer method results in decreased performance, it indicates that negative transfer has taken place (Torrey & Shavlik, 2010). An example of positive transfer would be when students are able to see links between concepts taught in the Literacy course and they able to use this to better understand concepts taught in their other subjects. In contrast, negative transfer occurs when students incorrectly apply skills or knowledge from the Literacy course to their other courses, or if these other courses have different requirements from what was taught in the Literacy course, leading to misunderstandings or errors. Instead of enhancing their learning, the application of these skills may result in ineffective or incorrect outcomes. For instance, a student might mistakenly use the incorrect referencing style in other courses, believing that referencing conventions are standardised universally, when this is not the case.

In summary, positive transfer allows students to apply their existing knowledge to enhance learning across different contexts, while negative transfer impedes knowledge acquisition due to discrepancies in previously acquired and new target knowledge and skills. Positive transfer therefore improves learning whereas negative transfer has a detrimental impact (Leberman, McDonald & Doyle, 2006).

3.2.3. Near and far transfer

Near and far transfer are terms used to describe the degree of similarity between the contexts wherein knowledge and skills are learned and applied. Near transfer occurs when students can apply what they have learned to a context that closely resembles the original learning environment, while far transfer refers to the application of knowledge and skills in a significantly different or unfamiliar context (Leberman, McDonald, & Doyle, 2006; Okunlola, 2023). Far transfer is often considered more challenging as "the source of learning and new context are dissimilar" (Jackson, Fleming & Rowe, 2019, p. 2) and requires a deeper understanding of the underlying principles of the knowledge or skills (Kober, 2015). An example of far transfer would be that a student perhaps learned the concept of community cultural wealth in the Literacy course and would apply the knowledge they got from this concept to their Teaching experience (TE). They could perhaps think about learner diversity and how their different learners all have unique community cultural capitals (the main theory drawn on in the course) they bring with them.

3.2.4. Horizontal and vertical transfer

Horizontal transfer refers to the transfer of knowledge and skills between similar contexts and levels (Bystrom & Kumpulainen, 2020). Vertical transfer, on the other hand, refers to using skills and knowledge gained in one context and applying that knowledge and skills at a more advanced level. An example of horizontal transfer in the Literacy course would be if a student earned time management skills in the Literacy course. The student would then be able to break down writing their reflections and assignments required in the Literacy course into manageable parts. In horizontal transfer, they would then use this strategy when they are tackling assignments and tasks in other courses. Vertical transfer would be if, for example, a student learns how to references and cite sources correctly and avoid plagiarism in the Literacy course, and they are later able to use this skill to do proper literature reviews for an essay project in their Education 1 course. Vertical transfer in this case would be that the student took a skill that was learnt at a basic level and applied it in another context for a more advanced task.

3.2.5. Forward and backward transfer

Forward transfer is the use of previously acquired knowledge to enhance performance on new tasks and backward transfer involves using new tasks to deepen the understanding of concepts that had been learnt previously (Benavides-Prado & Riddle, 2022). An example of forward transfer would be when students learn how to reference and structure their essays in their first year Literacy course. When they then take a module named sociology in their Education course in their second year, they will ideally apply these skills to write well-structured and properly referenced essays in their second year sociology module while slowly improving on these skills. In backward transfer, a student would, for example, apply knowledge or skills gained in a later stage of their education to enhance their understanding of earlier concepts. For example, when students examine social capital in their 4th year, they might think back to material covered in the Literacy course on community cultural capitals, and this might help them better understand how the concept of social capital discussed in their first year.

This chapter provided an overview of the theoretical frameworks which guided this study. The theories comprised of situated learning and transfer of learning theory. These theoretical perspectives formed the foundation for the analysis on how students in the first and second year of the BEd degree transferred knowledge and skills from the Literacy course to their core BEd

courses, BAT and Education I. The next chapters will build on these frameworks by looking at relevant literature, the research methodology and findings of this study.

Table 1: Summary of Forms of Knowledge Transfer

Type of Transfer	**Definition**	**Example (Literacy Course Context)**
Low Road Transfer	Automatic transfer based on similarity between tasks	Using referencing skills learned in Literacy in other subjects with similar referencing requirements
High Road Transfer	Conscious and effortful abstraction and application of general principles	Applying critical reading and writing strategies across multiple BEd courses
Positive Transfer	Prior knowledge improves learning/performance in new context	Using Literacy concepts to enhance understanding in other modules
Negative Transfer	Prior knowledge hinders learning/performance in new context	Applying incorrect referencing style in other modules
Near Transfer	Transfer to a closely related context	Using time management skills from Literacy for assignments in similar Education modules
Far Transfer	Transfer to a significantly different or unfamiliar context	Applying concepts such as community cultural wealth theory from Literacy to real-world teaching experiences (TE)
Horizontal Transfer	Transfer across tasks at the same level of complexity	Breaking tasks into manageable parts in multiple first-year modules
Vertical Transfer	Applying knowledge/skills in more advanced contexts	Using referencing skills from Literacy in a second-year literature review task
Forward Transfer	Applying earlier learning to future tasks	Using essay-writing skills from Literacy in second-year Education courses such as Sociology
Backward Transfer	Reinterpreting earlier learning based on later knowledge	Understanding first-year concepts better by connecting them to fourth-year discussions

CHAPTER 4: METHODOLOGY

In this chapter, the methodological framework, context of the study, participants of the study, research instruments and sampling methods are discussed.

4.1. METHODOLOGICAL FRAMEWORK

An interpretivist methodological framework was used to conduct this research specifically adopting a constructivist interpretivist paradigm. This paradigm posits that knowledge and meaning are co-constructed through social interactions and that reality is subjective and is shaped by an individual's experiences and contexts (Schwandt, 1994). Interpretivism is a philosophical and methodological paradigm in the social sciences which "allows researchers to view the world through the perceptions and experiences of the participants" (Thanh & Thanh, 2015, p. 24). It emphasises the importance of understanding the human experience within its social context (Thanh & Thanh, 2015; Alharahsheh & Pius, 2020; Feinberg & Soltis, 2009) and this is important for the interpretation of data which is gathered (Thanh & Thanh, 2015) in the research process.

Interpretivism is closely linked to qualitative research methods. This is because qualitative approaches allow for the collection of data from various viewpoints (Kegler, Raskind, Comeau, Griffith, Cooper & Shelton, 2019) as well as the contexts in which these perspectives are situated (O'Brien et al., 2014). Qualitative research allows for a detailed examination of people's experiences (Hennink, Hutter & Bailey, 2020, p. 10) by employing different research methods which are most suitable to gain deep, contextualised insights (Alharahsheh & Pius, 2020, p. 43).

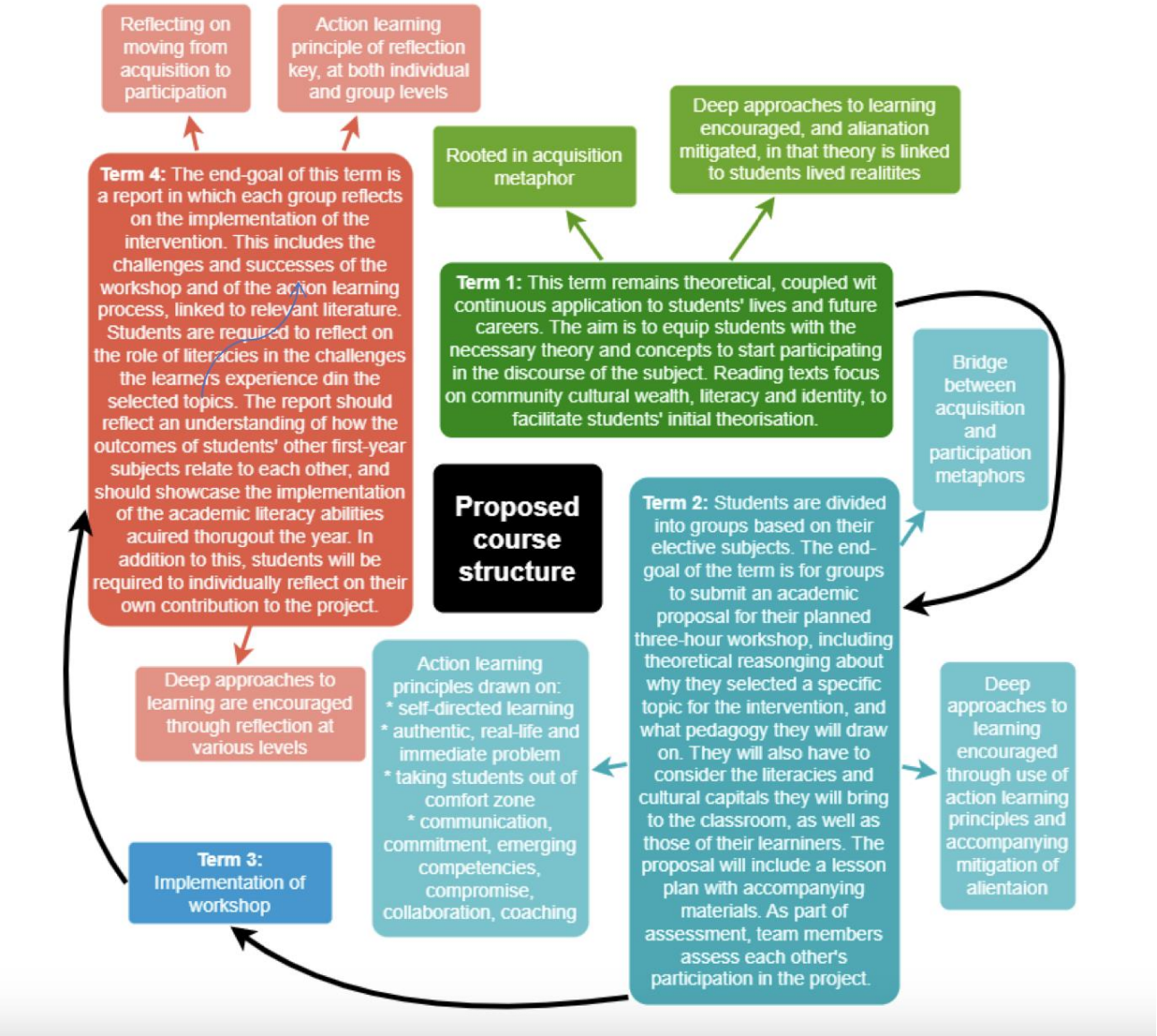
4.2. CONTEXT OF THE STUDY

This research was conducted at the University of the Witwatersrand's School of Education (WSoE) situated in Parktown, Johannesburg. The research project is based on the Literacy course, 'Literacy for SP/FET Teachers', which falls under the Division of Languages, Literacies and Literatures. This course is a compulsory course for all first-year Senior and FET

Phase students who are studying toward the Bachelor of Education degree (discussed in Chapter 1, Section 1.5). The course is structured in three parts that are taught throughout the three teaching terms of the year; during the remaining (third) term, students partake in a practical teaching experience module. Figure 4 describes the structure of the course (introduced in Chapter 1, Section 1.5) in more detail.

Figure 4

Literacy course structure



Note. Adapted from *Pre-service teacher investment through dialogic action learning*, by Fouché, I. 2024, p.3, 15(1).

4.3. PARTICIPANTS

The participants that took part in the focus group interviews in this study are first- and second-year BEd students who are studying towards becoming senior and FET phase teachers. The participants' ages generally range from 18 to 20 years old. The participants had different specialisation subjects (thus, subjects which they will teach in high school), including Mathematics, English, isiZulu, Sesotho, Life Orientation, Natural Science and Social Science. The participants that took part in this study represent diverse socio-cultural backgrounds originating from both private and public schools across various provinces in South Africa. For the first research instrument (focus group interviews), individuals were invited to take part in various focus-group interviews; students participated in this research based on their availability and willingness; explicit consent was sought from the students, and they signed all relevant documents. The focus group interviews were held in 2024. For the analysis of students written reflections, participants were chosen randomly based on pre-specified characteristics, for example, looking at the mention of certain skills and concepts (more about this process is discussed in Chapter 5) 10 students from the 2023 cohort and 10 students from the 2024 cohort of students reflections were analysed and these students made up the participants for the written reflections.

4.4. RESEARCH INSTRUMENTS

The qualitative methods which were used in this research are 1) focus-group interviews and 2) analysis of students' written reflections on their EDUC1280a second-term assignment.

4.4.1. Focus group interviews

A focus group is a group interaction which is led by the researcher "to identify a range of opinions on a specific issue" (Hennink, Hutter & Bailey, 2020, p. 41). Focus groups are most appropriate when recruiting participants who share similar experiences and perceptions (Tracy, 2013). The ideal duration for focus groups is 90 minutes or less (Tracy, 2013). The number of participants per focus group could be anything between three and 12 participants. However, the ideal number of participants is suggested to be between six to nine participants for maximum engagement (Tracy, 2013). A total of 25 participants took part in the research. In

2024, 15 first-year students and 10 second year students attended the in-person focus group interviews. The focus group interviews were conducted in 2024 at the University of the Witwatersrand's Education Campus. Eight focus groups were held, with group sizes ranging from two to ten participants. Although more students registered for smaller groups, attendance varied. The total of 25 participants included 15 first-year students attending seven sessions between July and September, and 10 second-year students attending sessions in August and September. The focus group interviews lasted approximately between 10 minutes and 45 minutes. Focus group interviews were conducted at the University of the Witwatersrand's Education Campus. There were eight focus group interviews with two to 10 participants per focus group. While more students booked for the smaller focus group interviews, students often did not show up for these focus group interviews. Despite this limitation, valuable data was collected. The list of interviews showing the dates, the number of students that were present at each interview and their year of study is shown below.

Table 2

List of interviews

Date	**No of students present at each Focus group interviews**	**Year of study**
26 July 2024	2 Students	First year Students
27 July 2024	1 Student	First year Students
27 July 2024	1 Student	First year Students
13 September 2024	3 Student	First year Students
13 September 2024	2 Students	First year Students
17 September	3 Students	First year Students
20 September	3 Students	First year Students
23 September 2024	10 Students	Second year Students

To obtain data from the research during the focus group interviews, students were asked "what knowledge and skills have you gained from the Literacy course" and "which of these skills

have you used in your other core courses?" (These questions are given in 'Appendix D and Appendix E'). 'Appendix D' and 'Appendix E' contain the questions that students were asked during focus group interviews. 'Appendix D' comprises of the questions that second-year students were asked, whereas 'Appendix E' comprises the questions that first-year students were asked. Asking students these questions were essential in gaining insight to their written reflections and focus group interviews." Additionally, students were asked questions to gain insight into the second research question, namely "identify and categorise the types of transfer evidenced through students' show how they have built on these skills by providing proof of where they apply these skills". The application of these skills in the students written reflections was further analysed through document analysis, discussed in Chapter 5.

There were two phases of focus group interviews. The first phase was conducted with first-year students from different tutorial groups in 2024 who wished to take part in this research (invitations were sent to all first-year students). There were eight focus group interviews that were held with these students (Table 2 shows this schedule). These interviews were held to determine their experience with regards to the transfer of skills. These interviews took place from July to September 2024. The discussions began with a summary of the Literacy course, outlining what students were studying in the course at the time of the interviews to refresh the students' memories. The questions that were asked are included as 'Appendix E'. A total of 15 first-year students attended these sessions over 7 sessions of focus group discussions (see Table 2).

The second phase of interviews were held with second-year students who completed the Literacy course in the previous year (2023). Focus group interviews were held with the 2023 cohort of students (thus, in their second year in 2024), to determine how, after having had time to reflect on their learning, they believed they transferred skills and knowledge from, and to, the Literacies subject in their first year of study. These interviews were held in August and September 2024. Ten second year students attended this session. The questions that were asked are included as 'Appendix D'.

In Chapter 5 to indicate the key insights from students, verbatim sections are italicised in the analysis to emphasise the application of learned skills and knowledge across different contexts.

Reflection is an essential aspect of learning. It enhances students to revisit what they have learnt to enhance their understanding. It allows students to "document their learning journey" while offering valuable insights and recommendations for future students (Chang, 2019). Focus group interviews allow students to reflect on learning that has happened. In addition, students were asked to write written reflections as part of the course. These are further analysed in Chapter 5.

Sampling

A total of 25 students who were enrolled in 2023 and 2024 took part in this research. Of these participants, 15 were first-year students and 10 of the participants were second-year students. Of the 25 participants, 11 were male students and 14 of the participants were female students. The students that attended the focus group interviews were Black students. Participants for the focus group interviews were selected through a sample of convenience, as students volunteered to take part in the research. A sample of convenience is a method of selecting participants who are easily accessible, and the participants are enrolled for the field or study wherein the researcher is conducting the research (Emerson, 2021). Participants for the focus group interviews were recruited through a convenience sampling method, whereby students voluntarily chose to participate based on their availability and willingness. This approach was appropriate given the accessibility of participants enrolled in the Literacy course. Explicit consent was obtained from all participants prior to their involvement. The participants of this study were actively engaged in the course for their first year of study; therefore, they were well positioned to share their experiences of their transfer of knowledge and skills between the Literacy course and their core courses.

4.4.2. Analysis of students' written reflections

As discussed in the aims and objectives (Chapter 1, Section 1.3), this research investigated the transfer of knowledge and skills from the Literacy course to students' core courses. The first focus was on the extent to which students were aware of and believed they were applying the skills and knowledge gained in their Literacy course to their other BEd core courses, specifically BAT and Education I. The second focus was on identifying the types of transfer evidenced in students' written reflections and focus group interviews. The third focus was on

determining whether there was evidence from students' written reflections and focus group interviews where students demonstrated deep, surface or strategic approaches to learning.

In the fourth teaching term of 2023 and 2024 respectively, students wrote reflections of their experience of the project. They were specifically encouraged to reflect on their learning journeys. From these reflections emerged discussions of students' perceptions of the knowledge and skills they gained in their core BEd subjects; these reflection and data comprised the document analysis for the research report. Document analysis is a qualitative process which includes the interpretation and evaluation of documents (Bowen, 2009). This process requires that data be "examined and interpreted in order to elicit meaning and gain understanding" (Bowen, 2009, p. 28). A total of 20 students' written reflections were analysed to see how and to which extent students perceive their transfer of knowledge between their core BEd courses and the Literacy course and how well they were able to carry out the transfer process.

Discourse analysis was used to analyse students' written reflections. Discourse analysis is a qualitative method which focuses on the "study of how to do things with words" (Hjelm, 2021, p. 2). It involves analysis of the ways in which spoken or written words can shape a person's identity, beliefs, ideologies, and practices (Hjelm, 2021). I analysed students' reflections by looking at the extent to which students were aware of transferring knowledge and skills between their courses through the words they use. In the analysis, I looked for the use of any specific words, synonyms and phrases that linked to the outcomes of the Literacy course. I also looked at the mention of specific words, synonyms, concepts or phrases that link to the content that is taught in BAT and Education I. In Chapter 5, to indicate the key insights from students, verbatim sections are italicised in the analysis to emphasise the application of learned skills and knowledge across different contexts.

Sampling

For the written reflection, quota sampling was used to ensure representation across all the different major and core subjects that students do. Quota sampling, which is a non-probability sampling method (discussed below) was used to select 20 individual reflections of students who met the criteria related to the skills and knowledge of their experience with the Literacy course.

For this research instrument, only reflections of students who have provided explicit consent (as part of an overarching research project led by the supervisor of this study) were analysed through quota sampling from 20 individual submissions as discussed above. Reflections from 2023 and 2024 were analysed.

For the selection of participants for the analysis of students' reflections, I used quota sampling. Quota sampling is a category of non-probability sampling (Anieting, 2017; Zhang, Mildenberger, Howe, Marlon, Rosenthal & Leiserowitz, 2020), where participants are divided and chosen based on characteristics. Non- probability sampling is a method where every participant does not have the chance of being included in a study (Acharya, Prakash, Saxena & Nigam, 2013) and it is not a random process (Lamm & Lamm, 2019). In quota sampling, the researcher chooses participants "on the basis of pre-specified characteristics" (Anieting, 2017, p. 34). For the analysis of students' written reflections, I analysed the reflections of 20 individual submissions where students specifically reflected on their experiences related to the skills and knowledge they gained in either their literacy course or their other core BEd courses. The criteria for selecting individual reflections for analysis included that the students specifically discussed skills and concepts they gained through the year. I looked at the mention of skills and concepts that formed part of the outcomes of the course (see Section 1.5).

To ensure an equal spread across tutorial groups, which all had different cohorts of students based on student's elective major subjects, one individual project was selected from each of the tutorial groups that students were divided into; therefore, the reflections of ten students (one from each of the 10 groups) were selected in 2023, and another ten in 2024 (the grouping of learners into tutorial groups is discussed in Chapter 1); in total, 20 individual reflections were therefore analysed from each group. Students were divided into groups of between 40 and 45 students for weekly two-hour tutorials (thus, approximately 10 ten tutorial groups in total).

Research method and data collection

Document analysis, as a qualitative method, involves the systematic interpretation and evaluation of documents to elicit meaning and enhance understanding (Bowen, 2009). In this study, a total of 20 student reflections were analysed to explore how, and to what extent,

students perceived the transfer of knowledge between their core BEd courses and the Literacy course, as well as how effectively they were able to enact this transfer.

This study involved both first- and second-year BEd students to capture a comprehensive understanding of the transfer of knowledge and skills over time. First-year students participated while actively engaged in the Literacy course in 2024, providing immediate insights into their learning experiences and perceptions of skill acquisition. In contrast, second-year students, having completed the Literacy course in 2023, were included to reflect on how they have applied and transferred these skills in subsequent core courses after having had time to consolidate their learning.

The focus group interviews with first-year students were conducted between July and September 2024**,** during their ongoing Literacy course. The second-year student interviews took place in August and September 2024, allowing these participants to retrospectively evaluate the impact of the Literacy course on their academic development after a year of progression in their studies. This two-cohort approach strengthens the study's ability to explore both immediate and longitudinal aspects of skill transfer.

4.5. ETHICAL CONSIDERATIONS

I applied for an ethics clearance (protocol number – 2024ECE026M) at the University of the Witwatersrand to be able to conduct this research and use the data in my final study. This ethics application was an extension of a current approved research project which focuses on the course under discussion. Data from 2023 was collected under this overarching project and was approved by the Human Research Ethics committee (HREC Non-medical) – my name was added as an additional researcher to allow me to access this data. The ethics clearance certificate is attached as 'Appendix G' at the end of this research.

The participants were informed about the aims of the project and written consent was sought from the participants to audio record their voices and use their data anonymously when taking part in the research. Permission for their work to be analysed was also sought provided that all identifying information be kept anonymous. All ethical guidelines were adhered to.

Data was stored in my password-protected computer, to which no one has access besides me. Data that has been collected was discussed with my supervisor, Dr Fouche to gain feedback or insight into this research. Dr Fouche's name was on my ethics application as well as the consent forms that were sent to the students and the ethics board. Students were informed that if they wanted to withdraw from the research at any point until the research is about to be submitted, they would be able to do so, and this was also made explicit in the consent forms.

I have previously worked as tutor in the course as mentioned in Chapter 1. I have also worked as a writing fellow on the course. I was not working as a tutor on the course while conducting this research; therefore, none of the participants knew me. There was a possibility that some of the second year students in the Phase 2 focus group interviews might remember me as a writing fellow, as I worked with 10% of the 2023 cohort as a writing fellow. However, there was not much interaction with students as most of the feedback I provided as a writing fellow in 2023 was online; therefore, there were no power dynamics at play that could hinder or alter the results of the research.

Throughout this research object, I remained cognisant of possible bias because of my previous involvement with this course. I committed to conducting this study impartially, ensuring that no bias affected the analysis or interpretation of data. To maintain objectivity, I carefully analysed and documented the focus group interviews and written reflections that serve as research tools for this study.

This chapter provided an account of the research methodology which was used to investigate the transfer of knowledge and skills between the Literacy course and students' core BEd courses. The study used an interpretivist approach and qualitative methods (discussed in Section 4.1). the context of the study was given in Section 4.2. Data was collected through focus group interviews (discussed in Section 4.4.1) and analysis of students written reports (discussed in Section 4.4.2). The participants comprised of first and second year BEd students and this was discussed in Section 4.3 Finally, the ethics for this research was discussed in the last Section (Section 4.5) of this Chapter.

CHAPTER 5: RESULTS AND DISCUSSION

This research examined the transfer of knowledge and skills between the Literacy course and students' core courses and analysed how students applied knowledge and skills from their Literacy course to their core BEd courses (BAT and Education I). The analysis of this section begins with a general discussion about the knowledge and concepts that students gained during their Literacy course. Thereafter, the types of transfer that were evident from students' written reflections and from the focus group interviews are discussed. Finally, various CCFOs and how these outcomes link to the skills students have gained are discussed. This section begins with Section 5.1, which looks at the skills and concepts that students gained from their Literacy course. In Section 5.2, the different types of transfer that were evident from students' written reflections and focus group interviews are discussed. In this section in the analysis of the types of transfer, each type of data set where a particular analysis was taken from is bolded and bracketed. Finally, in Section 5.3, the CCFOs are discussed in relation to the skills analysed from the two data sets.

5.1. SKILLS AND CONCEPTS GAINED FROM THE LITERACY COURSE

Focus group interviews were conducted to ascertain how students applied knowledge and skills they gained in the Literacy course to their core BEd subjects, i.e. BAT and Education. The students' written reflections were also analysed to see which skills and concepts they referred to. The participants discussed how they used skills like academic writing skill, referencing, reading and collaboration skills, and concepts like community cultural wealth and identity across their different courses and these are discussed below.

5.1.1. Academic writing skills

One of the most significant and recurring skills that students mentioned they gained from the Literacy course was academic writing. Students reflected on how the course helped them structure their essays in an effective way, which helped them with their performance in their other subjects. Writing skills included paragraph structuring, writing cohesive introductions and conclusions, defining key concepts, and developing strong thesis statements. One student said, *"This course has enhanced my paragraph writing skills, which I applied when writing essays that resulted in very good and exceptional grades, especially in the course Education 1*

(**Focus Group Interview, 2024 cohort**)."Another student also said, *"The writing skills have helped me a lot in writing good academic essays, using one of the methods taught in this course."* (**Focus Group Interview, 2023 cohort**). These reflections show that students actively applied their writing techniques across their different subjects. These reflections may also suggests that the Literacy course was not only successful in teaching writing as a skill in isolation but also in enabling meaningful transfer of learning, where students were able to adapt and apply these academic skills to different contexts.

5.1.2. Referencing skills

A majority of the students identified acquiring referencing skills through the Literacy course, with transfer of this skill to their other modules. One student said, "*I think the course showed us the significance of referencing*" (**Focus Group Interview, 2024 cohort**). One student when asked which skills and concepts have you learnt or knowledge even, that you were able to use in any other course", replied: "*I think I'll go with referencing; I didn't know to cite before literacy course. I learnt it through Literacy then I was able to apply it to Education*" (**Focus Group Interview, 2024 cohort**). The emphasis on referencing shows how the Literacy course addressed an essential aspect of academic integrity and scholarly practice. Students' reflections show that this skill was successfully transferred into other modules.

5.1.3. Reading skills

Students mentioned that they gained reading skills in the Literacy course. One student explained, "*The skills of notetaking, annotating weekly readings and summarising are most handy in courses like Education 1; for instance, in Education 1, I read, annotate and then when it is time to apply the knowledge I acquired from the readings, I am able to so*" (**Focus Group Interview, 2023 cohort**). Another student also said, *"We learned how to annotate texts in Literacy, and I now use that skill in Education and BAT"* (**Focus Group Interview, 2023 cohort**). These skills enabled students to engage more effectively with academic texts across their subjects. This shows that the Literacy course encouraged active reading strategies rather than passive consumption of texts which enabled the students to interact critically with the course materials.

5.1.4. Collaboration skills

Another skill that students have identified that they have learnt in the Literacy course and were able to transfer to their other BEd courses included collaborative work. Collaboration is a skill that students mentioned acquiring through the Literacy course which helped them communicate better with their peers and some students mentioned using this skills in their future work place. The mention of this skill by students can also suggest that students are engaging in a community of practice (discussed in Chapter 2), an environment where students interact, work together and learn from each other (Besar, 2018). Students mentioned this skills when they said:

- One student wrote "*Skills such as a paragraph writing, and teamwork have been very handy when engaging with other courses*" (**Written Reflection, 2023 cohort**) and another student wrote "*I acquired the skill of enforcing groupwork in my own classroom and in future and to engage in groupwork over my university period in all my courses*" (**Written Reflection, 2024 cohort**). Another student wrote "*I learned how to interact with people from different backgrounds through the group projects in this course, which has helped me in other classes where communication and teamwork are essential*" (**Written Reflection, 2023 cohort**). One student wrote "*I also intend on using the communication skill which I gained from being in interaction with my group members this year*" (**Focus Group Interview, 2024 cohort**). Another student mentioned this when they wrote "*I learnt the importance of teamwork and how communication can really go a long way*" (**Focus Group Interview, 2024 cohort**). One student said, "*the skills that I have learnt in this course and plan to apply it to next year's courses are self-reflection, good teamwork and how to write good cohesive paragraphs*" (**Focus Group Interview, 2024 cohort**). Finally, one other student said, "*As the future teacher, I am planning to promote group work and discussions in my lesson as I have learned and witnessed that they learners can learn from each other*" (**Written Reflection, 2023 cohort**).

5.1.5. Community cultural wealth

Students reflected on how they learned about the concept of community cultural wealth in the Literacy course and they applied it to other subjects, specifically in BAT . This concept helped them to understand learner diversity and apply inclusive teaching strategies. One student

stated, *"It's mostly BAT that links with Literacy rather than Education because in Literacy, we learn about community cultural wealth, and in BAT, they also want us to understand diversity in learners"* (**Focus Group Interview, 2024 cohort**). Another student explained, *"So in Literacy, we learn community cultural wealth and identity, and I think that's important to link it to English"* (**Focus Group Interview, 2023 cohort**).

5.1.6. Identity

One student discussed how the concept of identity helped them during their Teaching Experience (TE), and how they were able to integrate this concept in their role as a new teacher on TE. Many students referred to TE which is indicative that students were transferring the concepts and skills they gained in their Literacy course to the workplace. Another student wrote about how the concept of diversity learned in their literacy course helped them in their teaching practice. The student spoke about how diversity and inclusivity were "*essential in their classroom and lesson planning during TE*" (**Focus Group Interview, 2023 cohort**). Another student on the transfer of knowledge from Literacy to TE spoke about how learning about a concept like diversity and identity in Literacy has helped them become more respectful and accommodating of learners' diverse backgrounds in the class. This student wrote:

> "*The course has had a positive impact on my identity as a student and a teacher in training. I feel more confident in my ability to support learner's journey in being knowledgeable and to be inclusive in every learner's diversity by being accommodative. As a result of what I've learned in the course, I would approach my future teaching by incorporating in building up an environment that will be comfortable and aspiring to learners' success*" (**Focus Group Interview, 2024 cohort**).

Another student said "*Yeah, that concept, that then got transferred to, not BAT or Education really, but more to like uhm, English, but there was a bit of in BAT, where we kind of try on focus on the identity of the students we trying to teach*" (**Focus Group Interview, 2024 cohort**). Another student said, "*And so it helped me recognise that, okay, my identity differs from place to place*" (**Focus Group Interview, 2024 cohort**). And one student said, "*I feel like I'm transferring because it also, the identity what topic helped me with my English essay, it was about, social linguistics so it was, they go hand-in-hand with identity so I was able to integrate information from Literacy to BAT*" (**Focus Group Interview, 2023 cohort**).

5.2. TRANSFER OF KNOWLEDGE AND SKILLS

Transfer means applying what has been learnt in one context and applying it in another (Hajian, 2019; Okunlola, 2023). Students were asked about their understanding of the concept of transfer. Students believed that transfer of learning involves taking knowledge acquired in one context and applying it in a different context, which is essentially the definition of transfer. For example, one student said, "*I think it's like taking knowledge from which you learned somewhere else and applying it to another maybe context*" (**Focus Group Interview, 2023 cohort**). Another student said, "*It's basically when you learn something in one subject or one module and take whatever you've learnt, and it can appear in another module you are studying*" (**Focus Group Interview, 2024 cohort**). Transfer of learning refers to the degree to which knowledge and skills are applied across various contexts (Hajian, 2019). To assess students' understanding of transfer and the extent of transfer occurring between their courses, students were asked regarding the perceived connections between their courses, specifically among the Literacy, BAT and Education 1 modules. The following were some overall responses from students on the topic.

- "*It's mostly BAT that links with Literacy than Education, because there, they teach you like, about in the community cultural wealth, it teaches you about the diversity of the learners, then in BAT, they want you to know about the diversity of learners then you use your knowledge about all the diversities to help you maneuverer your way with the learners*". "*I believe that subjects like English, BAT, Literacy link very well, those three. I feel like subjects like… and a bit of Education because of the essays that we write but not the work we do because we do theories not really, but like the essays and stuff*" (**Focus Group Interview, 2024 cohort**).

Next, the types of transfer that was evident from students' written reflections as well as focus group interviews are discussed.

Types of transfer evident in students' written reflections and focus group interviews

Students demonstrated various types of transfer through their written reflections and focus group interviews. The types of transfer that were noticed include: Near transfer, far transfer, forward transfer, backward transfer, positive transfer, low road transfer and horizontal transfer.

5.2.1. Near Transfer

As discussed in Chapter 2, Section 2.2.3, near transfer occurs when students apply knowledge and skills learned in one context to another similar context (Okunlola, 2023). This was evident in both students' written reflections and focus group interviews, particularly in relation to skills such as writing skills, referencing, and annotation.

Near transfer could be identified in multiple instances, but possibly most prominently with regards to writing skills. As this student reflects, "*This course has enhanced my paragraph writing skills, which I applied when writing essays that resulted in very good and exceptional grades especially in the course Education 1*" (**Focus Group Interview, 2024 cohort**). The student demonstrated an understanding of the skill and applied it meaningfully in a similar context (another first-year subject) and therefore this indicates a deep approach to learning. Deep approaches to learning mean that students strive to understand concepts at a deeper level, focusing on the "underlying meaning" and seeking ways to transfer and apply the knowledge they gain to other tasks (Biggs, 1991, p. 29). However, this response can also have characteristics of strategic approaches to learning where the student was focused on the marks that they received (Schmidt, 2020). Similarly, another student noted, "*The writing skills have helped me a lot in writing good academic essays, using one of the methods taught in this course*"(**Written Reflection, 2024 cohort**). and "*This course has improved my writing skills such as using task words, which helped me to understand and better approach questions*" (**Written Reflection, 2024 cohort**). This student also demonstrated a deep approach to learning where they were able to apply the skills they used and better understand other tasks (Biggs, 1991). In the focus group interviews, students also discussed transferring writing skills, where one student stated, "*If I learnt paragraph writing in one module, then I would use that skills that I learnt one module and use it another module*" (**Focus Group Interview, 2024 cohort**). This student applied the skill of writing across courses to achieve good marks and this is a characteristic of strategic learning. A strategic approach to learning includes that a student apples good techniques to achieve specific academic goals (Schmidt, 2020).

Students also frequently mentioned referencing as a transferable skill. One student reflected, "*currently, I am applying the skill of reading, referencing and paragraph writing in all my courses.*" (**Written Reflection, 2023 cohort**). Another student added, *"I didn't know how to cite before the Literacy course. I learned it through Literacy, and then I was able to*

apply it to Education" (**Focus Group Interview, 2024 cohort**). These students can also be seen to use a strategic approach to learning as they use this skill of referencing across multiple courses to enhance performance in other courses.

Annotation and summary skills were also examples of near transfer, with students using these skills across courses. One student explained, "*The skills of notetaking, annotating weekly readings and summarising are most handy in courses like Education 1; for instance, in Education 1, I read, annotate and then when it is time to apply the knowledge I acquired from the readings, I am able to so*." (**Written Reflection, 2023 cohort**). Likewise, in the focus group interview, a student stated, *"We learned how to annotate texts in Literacy, and I now use that skill in Education and BAT"* (**Focus Group Interview, 2024 cohort**). These students actively engage with these skills to better their skills in other courses beyond what they are required to do which is a characteristic of deep approaches to learning (Mystakidis, 2021).

Another student noted, "*Writing academic paragraphs is one of the skills I learnt in the course and applied them in other courses such as Education 1 and Social sciences*" (**Written Reflection, 2023 cohort**).

5.2.2. Far Transfer

Far transfer occurs when students apply knowledge and skills learned in one context to a different, unrelated context (Jackson, Fleming & Rowe, 2019; Kober, 2015). Far transfer requires significant cognitive effort because the new context that students are required to apply the skills and knowledge to is different from the original environment (Jackson, Fleming & Rowe, 2019). Some students demonstrated far transfer by extending what they learned in Literacy beyond their core academic courses.

One student explained, "*The skill of linking information that I had learnt to my identity as a preservice teacher in this course, I am currently applying it to my Becoming a Teacher module, as I always link how I will be using the semantic waves that I had learnt to my identity as a preservice teacher, meaning in my own lessons as a teacher*." (**Written Reflection, 2023 cohort**). This demonstrates far transfer, as the student applies conceptual knowledge from Literacy to their teaching identity in BAT. Furthermore, this reflection aligns with a deep approach to learning, as the student is not only recalling information but actively making

connections between concepts, engaging with their learning, and applying their knowledge to their future teaching practice (Mystakidis, 2021). For instance, by linking semantic waves to their personal teaching and professional identity, the student shows understanding which is a key characteristic of deep approaches to learning.

Similarly, a student from the focus group interviews mentioned, *"I have learned how to write reflections. I am going to apply this skill to my English module, as they always require us to write reflections at the end of every assignment we get"*(**Focus Group Interview, 2024 cohort**). Here, the student applies reflective writing techniques from the Literacy course to a different subject, demonstrating far transfer. One student reflected, "*The skills of notetaking, annotating weekly readings and summarising are most handy in courses like Education 1; for instance, in Education 1, I read, annotate and then when it is time to apply the knowledge I acquired from the readings, I am able to so*." (**Written Reflection, 2023 cohort**).

5.2.3. Low Road Transfer

Low road transfer occurs when students automatically apply learned skills in similar academic tasks without requiring much adaptation and when the original and target activities share numerous features (Hajian, 2019). This was evident in students' ability to apply Literacy skills to Education I and BAT.

One student wrote, *"I use skills like note-taking in the lectures, annotating my readings, and summarising what I have learned from an academic text in my own words when studying"* (**Written Reflection**). Similarly, another student reflected, *"The PEEL method has helped me structure my paragraphs correctly in both Literacy and Education I"*(**Written Reflection**).

During the focus group interviews, students also spoke about applying the PEEL method to their writing. One student said, *"By using PEEL correctly, I am able to structure my responses better in BAT assignments"* (**Focus Group Interview**). These responses highlight low road transfer, as students apply skills such as referencing, paragraph structuring, and annotation directly to similar assignments. There is some overlap between low road transfer and near transfer.

5.2.4. Forward Transfer

Forward transfer is when students apply what they have learned in one context to a future task (Benavides-Prado & Riddle, 2022). This was evident in how students projected their use of Literacy skills in their future teaching careers.

One student wrote, *"As a future teacher, I am planning to promote group work and discussions in my lessons, as I have learned and witnessed that learners can learn from each other"* (**Written Reflection, 2023 cohort).** Similarly, another student reflected, *"The knowledge I got from the course will enable me to adapt my teaching methods to suit different learning styles and abilities among my learners"* (**Written Reflection, 2023 cohort).**

In the focus group interviews, students also discussed forward transfer, with one student stating, *"I acquired the skill of enforcing group work in my own classroom and plan to engage in group work throughout my university period in all my courses"* (**Written Reflection, 2024 cohort**). Another student spoke on how concepts introduced in the Literacy course, such as community cultural wealth *and* the diversity of learners, later became relevant in their Becoming a Teacher (BAT) course. The student stated, *"What we learn in Literacy we also learn in BAT, for example, community cultural wealth and diversity of learners. We learnt about that in Literacy, and then in BAT we spoke about how learners are different and how they learn differently"* (**Focus Group Interview, 2024 cohort**). This indicates forward transfer**,** as the knowledge gained in Literacy is later applied in BAT, which reinforces the student's understanding of learner diversity. This response reflects a deep approach to learning as the student shows the ability to connect concepts from different courses rather than treating them as separate concepts learned in one course. The student was able to recognise the overlap between the concept of community cultural wealth and learner diversity in both the Literacy course as well as BAT. This aligns with deep approaches to learning which emphasises meaningful engagement with course materials (Mystakidis, 2021).

5.2.5. Backward Transfer

Backward transfer occurs when students apply knowledge gained in one course to improve their understanding of a previous course (Hajian, 2019). This was less frequent, which makes sense considering that this is a first-year course, but some students in the focus groups provided examples.

One student stated, *"Like when we did the Literacy proposal, we had to look for authors, and we used authors that we were studying in other courses to support our argument"* (**Focus Group Interview, 2023 cohort**). Another student added, *"We used an author we learned about in BAT, and we applied that to Literacy"* (**Focus Group Interview, 2023 cohort**). These responses demonstrate backward transfer, as students are using knowledge from BAT and Education I to enhance their work in Literacy.

5.2.6. Horizontal Transfer

Horizontal transfer happens when students apply knowledge and skills across parallel academic contexts (Bystrom & Kumpulainen, 2020). This was evident in students' application of concepts such as identity and community cultural wealth in multiple subjects.

One student reflected, *"I utilised the concept of community cultural wealth in a variety of my courses, specifically English"* (**Written Reflection, 2023 cohort**). Another student stated, *"The concepts taught to us in this course have helped me tremendously in my other courses like Becoming a Teacher and Teaching Experience"* (**Written Reflection, 2024 cohort**).

In the focus group interviews, students also noted the connection between courses. One student explained, *"It's mostly BAT that links with Literacy rather than Education because in Literacy, we learn about community cultural wealth, and in BAT, they also want us to understand diversity in learners"* (**Focus Group Interview, 2024 cohort**). Another student from the focus group interviews stated, *"So Literacy, we learn community cultural wealth and identity, and I think that's important to link it to English"* (**Focus Group Interview, 2024 cohort**). These responses confirm that students recognised horizontal transfer, where the same concepts were applied across multiple courses.

5.2.7. Positive Transfer

Positive transfer happens when students effectively apply knowledge across courses (Leberman, McDonald, & Doyle, 2006). Many students recognised the value of the Literacy course in supporting their learning.

One student reflected, *"Literacy helps us to understand the other courses. What we study in Literacy is what we usually apply in other courses"* (**Focus Group Interview, 2023 cohort)**.

Another student in the focus group interviews stated, *"Literacy is important because, in those courses like BAT and Education, they don't really teach referencing as they do in Literacy"*(**Focus Group Interview, 2023 cohort**). These responses indicate positive transfer, where students consciously applied skills across subjects.

5.3. CCFOS AND LITERACY SKILLS

As discussed in Chapter 1, Section 1.5, the skills that were important for students to gain in the Literacy course included: reading strategies, referencing skills, academic integrity, and academic writing skills, which include essay writing, how to write cohesive and coherent paragraphs, paragraph and essay writing, structuring introductions and conclusions, defining key terms, writing effective thesis statements and analysing task words, being able to create definitions, writing effective thesis statements and writing reflective reports. These skills can be linked to CCFOS (discussed in Chapter 3, Section 3.4). CCFOS are the skills that the National Qualifications Framework emphasises as important for students (Roos, 2014). The skills that students mentioned in the Focus group interviews and their written reflections are analysed according to the CCFOs. The seven CCFOs are mentioned in the SAQA (n.d.) document. These are listed in Chapter 3, Section 3.3.

The students' written reflections and focus group interviews were analysed to see to when extent evidence could be found of students developing skills that aligned with the CCFOs. These are analysed below.

5.3.1. CFFO – identifying

This CCFO includes the ability to analyse, recognise and see possible solutions for problems by using creative and critical thinking (Pillay, Govender & Lachman, 2018; Roos, 2014). One of the core skills that was emphasised in students' reflections was the ability to analyse and apply writing skills across their various subjects. Many students recognised that their writing strategies that they acquired in the Literacy course allowed them to structure their essays effectively, which led to better academic performance. A student highlighted this when they said, "*This course has enhanced my paragraph writing skills, which I applied when writing essays that resulted in very good and exceptional grades, especially in the course Education 1*" (**Focus Group Interview, 2024 cohort**). Another student also said "*The writing*

skills have helped me a lot in writing good academic essays, using one of the methods taught in this course" (**Focus Group Interview, 2023 cohort**). These responses demonstrate that students are actively solving academic challenges by applying the writing techniques they learned, which is a key component of problem-solving in CCFO identifying and solving problems.

5.3.2. CCFO – working

This skill involves being able to work in a group (Pillay, Govender & Lachman, 2018; Roos, 2014). Collaboration and teamwork were also mentioned as essential skills developed in the Literacy course. The skills of communicating and teamwork were mentioned by students. One student wrote "*I also intend on using the communication skill which I gained from being in interaction with my group members this year*" (**Focus Group Interview, 2024 cohort**).. Another student mentioned this when they wrote "*I learnt the importance of teamwork and how communication can really go a long way*" (**Focus Group Interview, 2024 cohort**). One student said, "*the skills that I have learnt in this course and plan to apply it to next year's courses are self-reflection, good teamwork and how to write good cohesive paragraphs*" (**Focus Group Interview, 2024 cohort**). Another student noted, "*I learnt the importance of teamwork and how communication can really go a long way*" (**Focus Group Interview, 2024 cohort**). Finally, one more student said, "*As the future teacher, I am planning to promote group work and discussions in my lesson as I have learned and witnessed that they learners can learn from each other*" (**Focus Group Interview, 2024 cohort**) . Students reflected on how working in group projects improved their ability to communicate and engage with different individuals. One student explained, "*I learned how to interact with people from different backgrounds through the group projects in this course, which has helped me in other classes where communication and teamwork are essential*" (**Written Reflection, 2023 cohort**). Another student noted, "*I acquired the skill of enforcing group work in my own classroom and in future and to engage in group work over my university period in all my courses*." (**Written Reflection, 2024 cohort**). This highlights that students understand the importance of collaboration, which aligns with CCFO working by demonstrating their ability to work constructively with peers.

5.3.3. CCFO – organising

This CCFO includes the ability to regulate oneself and have effective time-management skills (Pillay, Govender & Lachman, 2018; Roos, 2014). Students mentioned skills such as academic writing and referencing skills which they transferred their courses. They demonstrated the ability to gather information from different sources, analyse it, and integrate it into their writing. For example, One student wrote, *"I think I'll go with referencing; I didn't know how to cite before the Literacy course. I learned it through Literacy, then I was able to apply it to Education"* (**Focus Group Interview, 2024 cohort**). Another student reflected on their ability to use multiple academic sources in their coursework: *"We used an author, we learned about him in BAT, he was explaining how to effectively explain things using semantics and everything. So, we used them in the Literacy course"* (**Focus Group Interview, 2024 cohort**). These responses demonstrate students' ability to evaluate and apply knowledge critically.

5.3.4. CCFO – communicating

This CCFO includes the skill of being able to communicate effectively (Pillay, Govender & Lachman, 2018, Roos, 2014). Students mentioned communication skills in their written reflections. The students emphasised the impact of the Literacy course on their ability . They emphasised the impact of Literacy on their ability to express their ideas clearly in academic writing and group discussions. One student wrote, *"I also intend on using the communication skill which I gained from being in interaction with my group members this year"* **(Focus Group Interview, 2024 cohort**). Another student said, *"I learned the importance of teamwork and how communication can really go a long way"* **(Focus Group Interview, 2023 cohort**). These reflections show that students were developing communication skills.

5.3.5. CCFO – demonstrating

Demonstrating is a CCFO which includes the ability to see connections between different things and being able to connect things together (Pillay, Govender & Lachman, 2018; Roos, 2014). Students showed an awareness of how concepts from the Literacy course applied to their other courses, as well as to their future careers as teachers. They recognised the importance of integrating concepts such as diversity, identity, and community cultural wealth into their teaching experiences. One student explained, *"The knowledge I got from the*

course will enable me to adapt my teaching methods to suit different learning styles and abilities among my learners, as they come from diverse backgrounds and need to be taught differently" (**Written Reflection, 2023 cohort).** Another student wrote, *"As a future teacher, I am planning to promote group work and discussions in my lessons, as I have learned and witnessed that learners can learn from each other"* (**Written Reflection, 2023 cohort).** These responses indicate that students understand the connections between different subjects and their future work as teachers.

5.4. THE IMPORTANCE OF THE LITERACY COURSE ACCORDING TO THE STUDENTS

The aim of this research was to see the extent to which students believe they were applying the knowledge and abilities they gain in the Literacies course to their BAT and Education I courses, and to which extent can they substantiate it with examples of their other subjects. Students spoke about the relevance of skills they learnt in BAT and Education to completing their literacy projects. Some students spoke how they transferred some knowledge from their BAT and Education courses, such as using the authors they studied in these courses to support arguments they made in their Literacy projects. For example, one student said, "*Like when we did the Literacy proposal, when we did the proposal right, we had to look for authors and stuff where we had to explain our thinking and stuff, so we used authors that we were studying in other courses to support our argument*" (**Focus Group Interview, 2023 cohort**). Another student added "*We used an author, we learnt about him in BAT, he was explaining how to effectively explain things using semantics and everything. So, we used them into the Literacy course*" (**Focus Group Interview, 2023 cohort**).

When looking at the importance of the Literacy course, students highlighted the importance of mastering of the Literacy course and the knowledge and skills taught in this course as it can benefit performance in various subjects. One student said about the importance of literacy, "*Literacy helps us to understand the other courses, I don't know if I am making sense, what we studying in Literacy is what we usually apply in other courses, hence its important*" (**Focus Group Interview, 2023 cohort)**. One student who took the Literacy course in 2023 said "*I know Literacy is difficult and if I were to advice any first years, I would say, I know it is difficult, but try by all means to push yourself, at least try and master Literacy, you have mastered at least about 50% of every course*" (**Focus Group Interview, 2023 cohort)**.

This research also highlights the significant role of the Literacy course in facilitating the transfer of core academic skills and knowledge across BEd courses, specifically BAT and Education; students also mentioned other courses such as the English and Social Sciences courses. The findings demonstrate that students perceive the Literacy course as an instrumental course in developing competencies such as paragraph writing, referencing, and structured essay techniques, which they successfully apply to assignments in BAT and Education I, reflecting evidence of near transfer. The importance of the Literacy course was especially mentioned by second year students who had completed the course in their first year. Their advice to first year students was "*Try and master Literacy, you have mastered at least about 50% of every course*" (**Focus Group Interview, 2023 cohort)**; and, "*Literacy is more like, uh, more of, everything that you are going to need for every other courses and in those courses, they don't really teach you, like in BAT and Education, they didn't go deep into like referencing*" (**Focus Group Interview, 2023 cohort)**.

This chapter examined how students transferred knowledge and skills from the Literacy course to their core BEd courses, BAT and Education. The findings drew from both focus group interviews and students' written reflections. Various types of transfer (discussed in Chapter 2, Section 2.2) were evident from the data sets, including near, far, low road, forward, backward, horizontal and positive transfer. Finally this chapter also looked at the links between the skills gained in the Literacy course and the CCFOs (discussed in section 5.3).

CHAPTER 6

6.1. SUMMARY OF FINDINGS

The first research question was "To which extent are students aware of, and believe they apply the knowledge and abilities gained in the Literacy course to their two core subjects (BAT and Education I), and vice versa"? The findings from both the students' written reflections and the focus group interviews have shown several skills and concepts that students have transferred from the Literacy course to their core BEd courses. In addition to their core courses, some students also mentioned other BEd courses like English and Social Sciences to which they have applied skills and concepts from the Literacy course.

Students identified skills such as academic writing skills, referencing skills reading skills and collaboration skills. Starting with the skills that students have mentioned, in both data sets (students' written reflections and focus group interviews), paragraph writing as a skill emerged as one of the most frequently applied and transferred skills. For instance, in their written reflections, students highlighted how the Literacy course has helped them develop their writing through the use of the 'PEEL' method, which they then applied in their essays and assignments in BAT and Education. Likewise, in the focus group interviews, students also mentioned using the writing strategies such as the PEEL method in their other core courses. The next skill is referencing which students mentioned in both data sets. In their written reflections, students mentioned and emphasised that they learned the skill of referencing in Literacy and applied this skill to BAT and Education. This view was reinforced during the focus group interviews. Referencing was the most emphasised skill among students in both the focus group interviews and the students' written reflections. When mentioning reading skills, students mentioned annotation skills like notetaking and summarising which assisted them to engage with academic texts in their courses like Literacy, Education and BAT. Finally, collaboration skills were also mentioned by students in both data sets. They referred to these skills by calling them teamwork and groupwork; for instance, one student said "*I learned how to interact with people from different backgrounds through the group projects in this course, which has helped me in other classes where communication and teamwork are essential*" (**Written Reflection, 2023 cohort**) and another mentioned "*I acquired the skill of enforcing groupwork in my own*

classroom and in future and to engage in groupwork over my university period in all my courses" (**Written Reflection, 2024 cohort**).

Two concepts were also mentioned by students in both data sets; identity and community cultural wealth. In their written reflections, students explained how these concepts helped them with their understanding of diversity in BAT and Education I. Similarly, focus group interview participants referenced using the concepts of community cultural wealth to navigate their understanding of diversity in courses like English and Education I.

The second research question was "What are the types of transfer that are evidenced through students' written reflections and focus group interviews?" There were many kinds of transfer that were analysed from both data sets. These included near and far transfer, forward and backward and transfer, positive transfer and horizontal transfer. Near transfer, which is defined as applying skills in contexts closely related to where these skills were learned (Leberman, McDonald, & Doyle, 2006), was evident in students' use of paragraph writing and referencing across core courses; BAT and Education. Far transfer, which is the application of knowledge and skills in an unfamiliar context (Leberman, McDonald, & Doyle, 2006), was noted especially when students were able to apply their learning in an unrelated context like during TE. Forward transfer happens when students use knowledge and skills learned to help with future tasks and contexts (Benavides-Prado & Riddle, 2022) and this type of transfer was evident when students spoke about using concepts and skills they gained in the Literacy course in their classrooms as future teachers and during TE. Backward transfer was very limited from both data sets. This type of transfer looks at using new tasks to deepen the understanding of concepts that had been learnt previously (Benavides-Prado & Riddle, 2022). Students mentioned this when they said that they used theories that they had learned in their other courses to the Literacy course.

Positive transfer which happens students apply previously learned knowledge and this facilitates learning or performance in a new context (Bardovi-Harlig & Sprouse, 2017) was evident when students were aware that their learning in the Literacy course would help them in their other courses. For students to be able to see the importance of Literacy and for them to be able to transfer the knowledge and skills they gain in their Literacy course to their BAT and Education I course shows that students are applying positive transfer. Finally, horizontal transfer was evident when students applied knowledge and skills in similar contexts where

there was not much thinking and application of knowledge and skills required. The fact that students apply positive and horizontal transfer suggests that the Literacy course does facilitate knowledge transfer, at least for the students who took part in this study. The course structure, which includes academic writing, referencing, and collaborative tasks, seems to create opportunities for students to apply these skills in their BAT and Education I courses although this was not made explicit. However, further research is needed to determine whether transfer is effective and widespread among all the students who are enrolled in the BEd degree. Since this study focused on a selected sample with few students in both data sets, future research is needed and could involve a larger cohort of students and use quantitative methods, such as surveys, to track and see whether students continue applying these skills over time. Additionally, interviews with course instructors from other courses in the BEd degree could provide insights into how intentional the course design is in assisting and encouraging transfer and whether adjustments could further enhance its effectiveness as well as effectiveness of other courses so that students may transfer what they learn the skills they acquire in their other courses to the Literacy course.

The last research question was "What evidence is there of deep, surface, or strategic approaches to learning from students' written reflections and focus group interviews?" This research report also analysed the approaches to learning students were engaging in. There were a few cases where students were engaging in deep and strategic approaches to learning as discussed in Chapter 5. For example, students engaged with concepts like identity and community cultural wealth and were able to see connections of these concepts with their other courses like BAT and Education I as well as apply it during their TE. More research is required to deeply analyse the approaches to learning students are partaking in and this can be done by asking more directed questions during focus group interviews as well as analysing different tasks that students have completed in other course to truly see the kinds of learning students are engaging in.

Finally, the findings in this research report have also touched on CCFOs which are the skills that students need to develop while they are studying so that they are able to apply these skills in real settings like the workplace (Roos, 2014). The data revealed that students demonstrated their abilities when they mentioned skills such as identifying problems as well as their ability to write structured essays. They were also able to work effectively with others and this helped them develop their collaboration skills. The evidence of the CCFOs in the students' written

reflections and focus group interviews may suggest that there is transferability of skills which is occurring, as students are applying the knowledge and skills gained in the Literacy course to their core BEd courses, BAT and Education. The ability of the students to identify and solve problems, structure their essays, and collaborate effectively demonstrates that the skills taught in the Literacy course are not remaining isolated within that course but are also being transferred and utilised in different academic contexts. This finding reinforces the idea that the Literacy course plays a role in facilitating knowledge transfer, particularly in developing academic literacy and collaboration skills that are essential across disciplines. In addition, since the CCFOs are designed to prepare students for real-world application, their presence in students' reflections suggests that they are beginning to see the relevance of these skills beyond their coursework, which is a crucial aspect of successful transfer.

6.2. LIMITATIONS

As discussed in Chapter 1, Section 1.5, an integral part of the Literacy course is the YouTube videos that students are required to create as part of their community engagement project. The YouTube videos did not form part of the analysis of this research project as it will make the scope of the research report too large. I am also not able to analyse these videos as students were allowed to create the YouTube videos using any of the content taught in their other courses, much of which I am not familiar with. Subjects that the 2023 and 2024 cohorts of students took in first year include Natural Science, Math, Life Orientation, Information Technology (IT), Social Science, IsiZulu and English.

I completed my undergraduate BEd studies at the University of the Witwatersrand's School of Education and therefore I also took the core compulsory subjects (Education, BAT and Literacy) with majors in English and Social Science. I therefore possessed sufficient contextual knowledge of the Education I and BAT courses to be able to analyse data related to these courses with the two research instruments used in this study. However, an analysis of references to major elective subjects was excluded from this study, as I do not possess sufficient background knowledge about these subjects.

Another limitation for this research could include the sample size of the participants. Although the study included 25 participants for the focus group interviews, and 20 participants in the analysis of written reflections, the sample size was quite small and may not have fully

represented the broader population of all BEd students, specifically because purposive sampling was used. Focus groups for the 2024 cohort were also smaller than recommended, due to circumstances out of my control. As a result of this, the findings may not be generalisable to all BEd students who completed the Literacy course, especially those in different years of study.

6.3. FUTURE RECOMMENDATIONS

Based on this research report and the findings from the research conducted on the transfer of knowledge and skills, with a specific focus on the Literacy course and students' core courses, several recommendations can be made for future practice to strengthen the transfer of knowledge and skills between the Literacy course and students' core courses, namely BAT and Education.

This research report initially began as a project to understand transfer on two levels; from students Literacy course to their core courses (BAT and Education) as well as from their core courses back to their Literacy course. However, through the data collection process from the analysis of students' written reports and focus group interviews, it became evident that there was transfer on one level; where knowledge and skills were applied from the Literacy course to students' core courses. However, there was little evidence of reverse transfer from students' core courses back to the Literacy course, even though the course tries to encourage this. This indicates a need for greater collaboration among lecturers within the BEd program to create a more cohesive and an interdisciplinary teaching approach to teaching courses. Such collaboration would for example, allow for the integration of concepts and skills across courses thus enabling students to apply their learning of concepts and skills in a more effective way across all their BEd courses. This recommendation would likely also apply to other literacy or academic literacy courses in other universities teaching BEd programmes.

Students should also be explicitly taught strategies to recognise and reflect on how they are transferring skills and knowledge across their courses. This is important so that students, from early on in their degrees, can identify connections between their courses. This is because from the focus group interviews and students written reflections, there was not much reflection showing that students could see the interconnectedness between their courses.

Finally, from the focus group interviews and students' written reflections, it was seen that students have mentioned some of their other courses, such as English and Social Sciences and so more research can also be conducted to see how students are transferring knowledge and skills between the BEd degree as a whole.

6.4. CONCLUSION

This research project explored the transfer of knowledge and skills among first- and second-year BEd students. The research focused on how learning skills and concepts from a Literacy course taught at the university of the Witwatersrand to first year students influenced their academic performance and engagement with their core BEd subjects, specifically Education I and BAT. This research examined students' awareness of transfer between their courses, the types of transfer that were evident in their learning through focus group interviews and analysis if students' written reports and finally the approaches to learning that influenced students ability to connect and transfer knowledge and skills. To gather data for this research, focus group interviews and analysis of students written reflections were conducted. The findings of this research report reveal that students consciously applied academic skills, such as writing strategies and referencing across their core courses as well as other courses, thus demonstrating positive and deliberate transfer from the Literacy course to students' core courses (BAT and Education). Academic skills such as paragraph and essay writing, referencing skills, reading strategies and collaboration skills were seen to be acquired by students. Concepts such as community cultural wealth and identity introduced in the Literacy course, have shaped students' future teaching philosophies and approaches to understanding learner diversity in their future classrooms as has been analysed and discussed in Chapter 5. Ultimately, this research highlights the importance of the Literacy course in equipping students with important skills and academic concepts that students can transfer between their courses. An emphasis need to be placed on the importance of cross-disciplinary connections between courses at higher institutions where student can thus be prepared for the future work place as teachers as well as academic success during their time in these higher education spaces.

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APPENDIX A

Consent Form: Student focus groups

Title of project: Making connections: Investigating the cross-disciplinary transfer of skills and knowledge in a BEd academic literacies course

Name of researcher: Hafsa Guure

I, , agree to participate in this research project. The research has been explained to me and I understand what my participation will involve. I agree to the following: (Please circle the relevant options below).

I agree that anonymity and confidentiality cannot be guaranteed, due to the group nature of this discussion.	YES	NO
I agree to abide by the ground rules about the confidentiality of the discussion staying in the group.	YES	NO
I agree that the researcher may use anonymous quotes in his / her research report.	YES	NO
I agree that the interview may be audio recorded.	YES	NO
I agree that the information I provide may be used in an anonymized format after this project has ended, for academic purposes by other researchers, subject to their own ethics clearance being obtained.	YES	NO

…… (signature)
…… (name of participant)

…… (date)

APPENDIX B

Participant Information Sheet: Focus Group Interviews

Dear student

My name is Hafsa Guure and I am a Masters student at the University of the Witwatersrand (School of Education), Johannesburg. As part of my studies, I have to undertake a research project and my project aims to 'determine how effective the Literacy course that students have done/are doing in their first year in 2022 and 2023, and currently in 2024, has been in assisting students' transfer of skills and knowledge and see connections between their courses. This is under the supervision of Dr Ilse Fouche.

As part of this project, I would like to invite you to take part in a focus group interview. This will involve me asking you and a group of other students some questions about your experience of the EDUC1280a course and will take around one hour. With your permission, I would also like to audio record the interview using a digital device. Participation in this study has no implications whatsoever for your grades for this course. The research project and the course are two different things.

There will be no personal costs to you if you participate in this project. You will not receive any direct benefits from participation but there are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. You may withdraw at any time or not answer any question if you do not want to. Since this is a group activity, I cannot guarantee anonymity or confidentiality from the other group participants. However, I will be using a pseudonym (false name) to represent your participation in my final research report. If you experience any distress or discomfort at any point in this process, we will stop the interview or resume another time. The data collected in this study may be used for secondary analysis in the future by other researchers, with ethics approval, though this data will be anonymised to ensure that you cannot be identified.

If you have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be reported on in peer-reviewed academic journal articles, which will be available through the university library website. I will also share any completed articles if you e-mail me and request these. The data collected from this research project will be stored in a password protected computer. With your permission the data collected from this research project may be used by other researchers in an anonymised format. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon-medical@wits.ac.za

Yours sincerely,
Hafsa Guure

Researcher:

Hafsa Guure
1844848@students.wits.ac.za
0785299418

Supervisor:
Dr Ilse Fouche
ilse.fouche@wits.ac.za

APPENDIX C

Participant Information Sheet: Analysis of Students' written reflections

Dear student

My name is Hafsa Guure and I am a Masters student at the University of the Witwatersrand (School of Education), Johannesburg. As part of my studies, I have to undertake a research project and my project aims to 'determine how effective the Literacy course that students have done/are doing in their first year in 2022 and 2023, and currently in 2024, has been in assisting students' transfer of skills and knowledge and see connections between their courses. This is under the supervision of Dr Ilse Fouche.

As part of this project, I would like to seek your permission in analysing your written reflections in which you have discussed your perceptions of the knowledge you have gained in your core BEd subjects; these reflection and data will be part of the document analysis for the research report. The written reflections will be analysed to see how and to which extent you perceive your transfer of knowledge between your core BEd courses and the Literacy course and how well you were able to carry out the transfer process. I will analyse your written reflections by looking at the extent to which you felt you were practising the transfer of knowledge and skills between your courses through the words you have used in your reflections. In the analysis, I will be looking for the use of any specific words, synonyms and phrases that link to the outcomes of the Literacy course. I will also be looking at the mention of specific words, synonyms, concepts or phrases that link to the content that is taught in BAT and Education. Participation in this study has no implications whatsoever for your grades for this course. The research project and the course are two different things.

There will be no personal costs to you if you participate in this project. You will not receive any direct benefits from participation but there are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. You may withdraw at any time by sending me an email on the details listed below to let me know that you do not want your reflections analysed any longer. Since this is an individual activity where I will analyse your reflections personally, I can guarantee anonymity and confidentiality. I will do this by using a pseudonym (false name) to represent your responses in my final research report. The data collected in this study may be used for secondary analysis in the future by other researchers, with ethics approval, though this data will be anonymised to ensure that you cannot be identified.

If you have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be reported on in peer-reviewed academic journal articles, which will be available through the university library website. I will also share any completed articles if you e-mail me and request these. The data collected from this research project will be stored in a password protected computer. With your permission the data collected from this research project may be used by other researchers in an anonymised format. If you have any concerns or complaints regarding the ethical procedures of this study, you are

welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon-medical@wits.ac.za

Yours sincerely,
Hafsa Guure

Researcher:
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1844848@students.wits.ac.za
0785299418

Supervisor:
Dr Ilse Fouche
ilse.fouche@wits.ac.za

APPENDIX D

Focus group interviews for students who have previously undertaken the Literacy course in 2023:

- What knowledge and skills have you gained from the Literacy course?
- Which of these skills have you used in your other core courses (BAT and Education)? Tell me about the skills, and the courses you used them in.
- Which specific skills or concepts would you have preferred to be taught more deeply in the Literacy course and why?
- How do you think the course can be improved for future students in terms of helping them being able to apply and the knowledge and skills they gain in one course to another course?
- Which other course(s) has/have provided you with beneficial knowledge in successfully completing your Literacy projects? And why was this knowledge useful to you?

APPENDIX E

Questions for the focus group interview questions for students who have completed the course in 2024:

- What do you understand by ‘transfer of knowledge and skills’?
- What are some skills and knowledge you have learnt in either the Literacy course or your other core BEd courses that you were able to use in any situation/context? Tell me more about these.
- Why do you think it is important use the knowledge and skills you gain in your Literacy course to your other subjects (BAT and Education)?
- You were asked to apply knowledge and skills from some of your literacies course. Did you find this useful? Why/why not?

APPENDIX F

Interview schedule

Date	Duration	No of students present at each Focus group interviews	Year of study
26 July 2024	16 Minutes 13 Seconds	2 Students	First year Students
27 July 2024	22 Minutes 31 Seconds	1 Student	First year Students
27 July 2024	21 Minutes 4 Seconds	1 Student	First year Students
13 September 2024	14 Minutes 30 Seconds	3 Student	First year Students
13 September 2024	10 Minutes	2 Students	First year Students
17 September	11 Minutes 34 Seconds	3 Students	First year Students
20 September	10 Minutes	3 Students	First year Students
23 September 2024	30 Minutes	10 Students	Second year Students

APPENDIX G

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG | WSoE Wits School of Education

SCHOOL OF EDUCATION ETHICS COMMITTEE

CONSTITUTED UNDER THE UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: 2024ECE026M**
PROJECT TITLE	Making connections: Investigating the cross-disciplinary transfer of skills and knowledge in a BEd academic literacies course
INVESTIGATOR	HAFSA GUURE
SCHOOL/DEPARTMENT OF INVESTIGATOR	WSoE
DATE CONSIDERED	10 June 2024
DECISION OF THE COMMITTEE	Approved unconditionally
RISK LEVEL	Minimal Risk
EXPIRY DATE	Date of submission of the Research Report
ISSUE DATE OF CERTIFICATE	15 July 2024
CHAIRPERSON	Dr. Lawan Abdulhamid

cc: Dr. Ilse Fouche

DECLARATION OF INVESTIGATOR

To be completed in duplicate and **ONE COPY** returned to the Chairperson of the School/Department ethics committee.

I fully understand the conditions under which I am are authorized to carry out the abovementioned research and I 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.

_____ _____/_____/_____

Signature **Date**