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MORAY HOUSE SCHOOL OF EDUCATION

Scaffolding Academic Literacy with Undergraduate Social Science Students at the University of KwaZulu-Natal using the Learning to Read: Reading to Learn Intervention Strategy: an Evaluative Study

Matriculation No. s1034900

Submitted in partial fulfilment of the requirements for an MSc Education: Language, Theory and Practice

August 2011
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MSc DISSERTATION

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COURSE/PROGRAMME: MSc Education: Language, Theory and Practice

TITLE OF WORK: Scaffolding Academic Literacy with Undergraduate Social Science Students at the University of KwaZulu-Natal using the Learning to Read: Reading to Learn Intervention Strategy: An Evaluative Study

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Acknowledgements

I would like to first and foremost, humbly submit this paper, and my MSc Education to my Lord and Savior. Without His guidance, support and unending grace, I would not have been able to complete this year. I give all glory to Him. Secondly, I would like to thank my Supervisor, Dr. Richard Easton for his expert guidance and support for the duration of this project. Thirdly, I would like to thank my very patient husband for his love, support and encouragement, not only for the duration of this year, but for the entire duration of my tertiary studies. His support and mentoring has been invaluable to me and I will be forever grateful for the sacrifices he has made to enable me to get this far. Fourthly, I would like to thank my parents for their constant encouragement and prayers. It has been a precious source of motivation and encouragement this year. Lastly, but certainly not least, I would like thank Mr. Laurie Dippenaar and the Oppenheimer Memorial Trust for their generous scholarships which have enabled me to complete my studies at such a prestigious University.
Abstract

This paper reports on an action research project that explored the use of the Learning to Read: Reading to Learn intervention pedagogy to accelerate the development of literacy skills of marginalized, non-native speakers of English in an undergraduate Academic Writing module within the Social Sciences at the University of KwaZulu-Natal, South Africa. Two research questions were raised for this study. Firstly, is this pedagogic strategy an effective approach for the Academic Writing module at UKZN? And secondly, what happens to students’ academic writing scores after one semester with the implementation of ‘RtL’? The ‘RtL’ pedagogy draws on the theoretical assumptions of Vygotsky, Halliday and Bernstein and is supposed to enable students to develop necessary literacy skills to access, and succeed at tertiary level. The context of education in South Africa, particularly poor literacy rates, is outlined first. A detailed discussion of the pedagogic strategy and possible causes of poor literacy rates amongst marginalized learners follows. A mixed methods approach is adopted within this study as students’ qualitative writing samples are collected and given numerical scores with the assistance of a well researched and developed marking rubric/criteria. Both descriptive and analytical (Wilcoxon Signed-Rank test) statistics were used to analyze students’ literacy scores. Results indicate that students’ literacy scores do increase within the first half of the module, but decrease within the second half. This decrease is attributed to a rise in academic complexity of the reading material and assignment requirements; a change in pedagogic practice and type of text used to scaffold academic language patterns; and insufficient time for students to internalize language patterns modeled. Although the overall pattern of changing literacy scores is less promising, requiring a degree of change in the way ‘RtL’ is currently being implemented at UKZN, the changing scores of individual students, particularly the weakest cohort of students, illustrates well that ‘RtL’ does democratize the classroom and lessens the abilities gap between weaker, and stronger readers as these students showed significant improvement in their literacy scores.

Keywords: English for Academic Purposes; Scaffolding Academic Literacy for Marginalized Learners; Indigenous; Scaffolding; Social Sciences
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CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

The South African (SA) educational system is in disarray, resulting in it failing the majority of children (Jansen, 2005). This should ‘ring warning bells’ because a rapid upsurge in globalization has led to a rapid growth in economic trade. The ability to participate in this global market is contingent upon SA developing competent personnel. Consequently, this places huge pressure on educational organizations to increase their quality of educational outcomes and “work towards achieving more equitable distributions in learning opportunities (Schleicher in Barber & Mourished, 2007)”.

Yet, despite massive expenditure, together with impressive efforts at transformation of pedagogic practices, literacy performances have hardly progressed. Thus, the SA schooling system is described as a “high cost / high enrolment, yet low quality system (Hugo, 2009)”. UNESCO’s (2011) global testing of literacy levels of learners across the world has shown that more than 75% of SA students are performing below minimum international literacy benchmarks. See Figure 1.1.

Figure 1.1: International Literacy Benchmark Scores

![International Literacy Benchmark Scores](UNESCO, 2011)
Data from the Southern and Eastern African Consortium for Monitoring Educational Quality (SACMEQ) in sub-Saharan Africa report highlights the meager performance of SA learners’ compared to 13 other African countries operating in similar poverty-stricken contexts (UNESCO, 2011; Taylor, 2008). See Figure 1.2.

**Figure 1.2: SACMEQ Reading Scores for sub-Saharan Africa**

SA is outperformed by 8/15 countries tested (Taylor, 2008). According to Figure 1.2 above, approximately 25% of Grade 6 learners in SA are performing at levels 1-2 (have not required basic literacy skills – refer to figure 1.2); whilst, just under 40% of Grade 6 learners are performing at levels 3-4 (have basic literacy skills) (UNESCO, 2011; Hungi, Maukwa, Saito, Dolata, van Capella, Paviot, & Vellien 2010). To intensify the above findings, Taylor (2008) reports that countries which outperformed SA, such as Kenya and Tanzania, have a gross domestic product (GDP) equivalent to 1/10th of SA’s GDP. A closer look at what is happening within the boundaries of SA is even more alarming. The National Department of Education released the results of its Systemic Evaluations of Grade 3 and 6 learners in 2003, 2006 and 2011 respectively. The average literacy score of Grade 3 learners was 39% in 2003. No improvements were reported in 2011 with only 31% of Grade 3 learners scoring above 50%. Further, in 2006 more than 2/3 of Grade 6 learners performed well below required levels of reading and writing with 2011 results showing that only 15% of Grade 6 learners are scoring above 50% (UNESCO, 2011). Further, Figure 1.3 highlights a disturbing reality for SA – there is a vast disparity in distributional and social equity within schooling in SA. A discussion of the causes is included in the literature review.
Figure 1.3: Distributional and Social Inequality within sub-Saharan Africa

<table>
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<th>Percentage of grade 6 students scoring from level 5 to level 8 in the SACMEQ reading assessment, 2007</th>
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<td>National average</td>
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<td>% of grade 6 students scoring between level 5 and 8 in reading</td>
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<td>Source: SACMEQ uses eight levels to rank grade 6 reading skills. Level 1 students are classified as having only pre-reading skills. Level 5 students are classified as having interpretive reading skills and level 6 students are assessed as having obtained critical reading skills. (Hugo, 2009).</td>
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UNESCO, 2011

Figure 1.3 illustrates that the gap between better skilled readers and less-skilled readers is more noticeable (bad). Poverty-stricken students from rural districts within SA are experiencing schooling that is inferior to that experienced by students from wealthy families, and more wealthy schools. This is disturbing because the more impoverished a student is; the more profound the influence education has on that student (Hugo, 2009). “This is because access to quality education is the key to breaking the cycle of poverty (Hugo, 2009)”.

1.2 Purpose of the Study

There are a number of reasons why a study of literacy development strategies is deemed important for SA. Firstly, although there have been attempts at finding alternative approaches to the development of literacy skills, research has shown that none have succeeded to date (Hart, 2009; UNESCO, 2011). Therefore, the search for cost-effective, implementable strategies needs to continue. It is for this reason that the Reading to Learn (RtL) literacy strategy has been chosen for evaluation. Secondly, not much is known about the efficacy of ‘RtL’ within SA. ‘RtL’ has been integrated into an English Academic Writing course at the University of KwaZulu-Natal (UKZN) as an alternate didactic method for the teaching of English Academic Reading and Writing. Therefore, an analysis of
students’ literacy scores is needed in an effort to determine whether the intervention strategy is effective and applicable to the context of UKZN. Thirdly, by engaging in such a study, I hope to gain a better understanding of the current literacy situation in SA, as well as new insights into the theoretical assumptions of ‘RtL’, and how it relates to literacy pedagogy for my own professional development.

1.3 Research Problem

The implementation of the Constitution of SA post-apartheid offered a foundation for curriculum transformation. One of the philosophies of the new-found National Curriculum Statement (NCS) is social transformation. This stems from a need to tackle issues associated with Apartheid education. Therefore, social transformation in schooling today is aimed at certifying the inequity of the past is remedied; therefore, giving equal admission to quality learning to ALL learners in spite of socio-economic status. However, this is not the case in SA today as a majority of African learners are failing to achieve international standards in literacy, further ‘imprisoning’ poorer learners within a cycle of poverty. This could be as a result of the new language policy.

The current language policy is designed to create multilingual individuals through additive bilingualism. However, the home language of a vast majority of learners in SA is not offered at schools as the medium of instruction (MOI), resulting in poor development of Cognitive Academic Language Proficiency (CALP); hence, the devastatingly low levels of literacy in SA. This problem is exacerbated by poor sequencing and pacing of the literacy curriculum, resulting in large numbers of disadvantaged learners falling further behind and eventually dropping out of school. (See literature review). Failure to create alternative pedagogic practices may result in scores of disadvantaged learners remaining disadvantaged. This is because quality education provides the key to unlocking the cycle of poverty. However, with failed attempts at addressing the literacy crisis, the question one needs to ask now is: what other, cost effective alternative pedagogic practices can be used to speedily raise literacy levels amongst learners at UKZN?

1.4 Research Questions

1. Is the ‘RtL’ strategy an effective pedagogic approach for the English Academic Writing course at UKZN?

2. What happens to students’ academic literacy scores after one semester when the ‘RtL’ strategy is integrated into an Academic Writing course at the UKZN?
1.5 Thesis Organization

Chapter One provides a description of the subsequent collapse of literacy achievements in SA and offers a rationale for this research paper, and defines the research problem and research questions to be examined. Chapter Two includes a literature review which discusses literacy pedagogies and ‘RtL’; explores the theoretical assumptions of ‘RtL’; and offers insights into possible causes of the literacy crisis in SA. Chapter Three describes the research methodology adopted within this paper. Chapter Four presents the results from the analysis of data and discusses these findings within the framework of the literature review. Finally, Chapter Five offers a conclusion to the study.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

The term ‘literacy’ can be rather ambiguous. Therefore, for the purpose of this study, the term will refer to a student’s ability to read English texts fluently, with comprehension, and write English texts coherently, at a grade appropriate level to ensure access to higher learning (UNESCO, 2011). I have not specified a particular grade or level within this paper as the literature review covers literacy skills ranging from pre-foundation phase to undergraduate tertiary level within SA. Already discussed in Chapter One, literacy rates amongst SA learners are alarmingly low and need to be addressed to provide learners with opportunities to access, and succeed at school and tertiary level (Rose, 2004). However, to ensure even the most disadvantaged educational facility (school and tertiary) has the capacity to provide quality literacy programs, low cost strategies need to be developed. Such an intervention strategy has been developed in Australia; although, it has been established for a ‘developed/first world’ context; whereas, SA is classified as a ‘developing/third world’ context. This raises concerns for the practicality and efficacy of such a strategy in SA. Thus, the aim of this literature review is to provide a more detailed examination of ‘RtL’ as a better understanding of its goals and theoretical underpinnings allow for a more thorough evaluation of its applicability to SA, and more specifically, to UKZN. Therefore, this chapter will; firstly, provide a brief overview of literacy pedagogies in general followed by a detailed discussion of ‘RtL’. Secondly, this chapter will discuss the theoretical underpinnings of ‘RtL’. Thirdly, this chapter will offer insights into one of the numerous causes of poor literacy rates amongst Australian and SA learners, which provides the rationale for researching and implementing interventions such as ‘RtL’. It must be noted that the aim of this paper is to investigate ‘RtL’ only. Therefore, this literature review will not offer a discussion of more general literature and debates regarding language acquisition, foreign language teaching or academic writing. Although these could add to the integrity of this paper, it is too large for the scope of this paper.

2.2 Academic Reading and Writing Pedagogies and the Reading to Learn Intervention Strategy

Literacy pedagogies often encompass one perspective of the nature of reading and writing. For example, traditional pedagogies foreground linguistic features of written texts and ensure learners are presented with the regularities and ‘rules’ related to particular forms of written texts only (Luke & Freebody, 1997). Socio-literate approaches emphasize that writing is a social practice and is shaped by social forces as much as it is shaped by linguistic and cognitive procedures (John, 1997; Jackson,
Further, socio-literate pedagogies expose the multifaceted and often countless meanings and uses that reading and writing can have for various differing communities (Gee, 1996; Swales, 1990); whilst, behaviorist pedagogies - basal readers and phonics programs, focus on the development of literacy skills within individual learners by communicating systematized information of language structures and curriculum content. Progressivist pedagogies, such as ‘whole language’ literacy modules, focus on the personal development of individuals through the acquisition of cultural and personal abilities (Martin, Christie & Rothery, 1987); whilst, critical pedagogies aim to change political relations between groups of individuals through the teaching of critical literacy skills (Bourdieu, 1991; Freire, 1970). Social-psychological models - genre-based approaches, are also concerned with changing power associations. This is achieved largely through the transmitting of literacy skills via institutionally privileged discourses (Martin & Rose, 2005).

None of these approaches are without fault though. For example, genre-based approaches erroneously assume all learners have access to institutional discourses (elaborated codes of consciousness – to be discussed in detail). Personal experience has highlighted that genre-based pedagogies often result in the development of ‘mechanical’ writers who are less confident to deviate from genre models given in class; thereby, failing to produce autonomous learners. Equally, critical literacy pedagogies often blur the boundaries of critical literacy and critical reading. For example, critical reading asks for an objective analysis of authorial intention, rendering the practice positivistic in nature. In contrast, critical literacy maintains that what constitutes knowledge is not neutral. Instead it is based on the discursive rules of individual communities and is therefore, both ideological and interpretivist (Cervetti, Pardales & Damico, 2001). Unless learners are given the necessary tools to increase their level of criticality, they simply perform critical reading tasks and fail to achieve critical literacy objectives set out by the NCS. From the above, it becomes increasingly clear that literacy development should not be perceived simply as the adoption of one pedagogic approach, or the “mastery of a fairly discrete set of decoding and encoding skills (Jackson, 2005)”. Rather, literacy development programs, like ‘RtL’, need to integrate aspects of numerous approaches.

‘RtL’s approach to literacy development attempts to synthesize the opposing positions of all of the above (See Figure 2.1), resulting in a strategy that is able to fast track development of literacy skills within any phase of the curriculum, and across all subject specializations (Rose, 2006, 2004; Acevedo, 2010). Independent research has demonstrated that it is four times more effective.
than other literacy strategies in advancing literacy skills (Acevedo, 2010; Rose & Acevedo, 2006; McRae et al, 2000). Figure 2.2 illustrates that the weaker the student, the greater the educational gains; thereby, democratizing the classroom. However, in using Figure 2.2 as a means of representing the success rate of ‘RtL’, one must distinguish between percentage point and percent changes – these are two different concepts. For example, if a student’s literacy score increases from 50% to 60%, this is a 10 percentage point increase in the literacy score, but a 20 percent (60-50/50) increase in literacy score. Rose’s (2008) paper does not make this distinction clear. If, indeed, Rose uses a percent change, this may in fact inflate the overall increase, giving a misleading representation of increased performance. Nevertheless, according to the results, ‘RtL’ should be capable of advancing SA

Figure 2.2: Closing the Gap in Literacy Scores (Rose, 2008)

Note: Figure 2.2 compares the growth rates of top and bottom learner groups from 90 schools in Australia over 2-3 terms. The top cohort’s scores average growth from point B – A is equal to over 1 years expected growth. The weaker cohort of students’ average growth from E – C is equivalent to 3 years growth and more than halves the achievement gap between better performing students and weaker students.
students’ literacy capacity. However, this proposition assumes that educators in SA are equipped with basic educational skills needed to scaffold learners. Recent testing of teacher competencies in SA found that over 4 303 teachers teaching within one province alone lack basic teacher proficiencies (Department of Education, SA, 2011). In my opinion, although teacher resources in SA may provide stumbling blocks to the effective application of ‘RtL’ in the immediate future, the results alone highlight that it is a worthwhile pedagogy and should be implemented alongside essential in-house teacher training. This is because its ultimate goal is to redistribute categories of consciousness that would normally be associated with middle class occupation, to societal groupings marginalized by ‘middle class pedagogic discourse and practices’; thereby, democratizing the classroom (Freire, 1971; Bernstein, 1990; Rose, 2007). In other words, its main goal is to eradicate educational oppression. This is accomplished by using a pedagogy that is focused on supporting learners’ in their acquisition of crucial orientations to reading achieved by careful scaffolding in purposefully designed interactive cycles (Initiate-Response-Feedback) (Rose, 2006).

The primary skill that students require for tertiary-based schooling is the ability to independently learn from reading (Rose, 2008). This is because all University courses require large chunks of academic material to be read before lectures. The function of the lecture is then to synthesize, and build upon information offered in course reading materials (Rose, 2008). Students are then required to demonstrate their understanding by written assignments. However, according, to Rose (2008), the traditional academic cycle (Figure 2.3) assumes that learners come to University with the necessary skills needed to independently learn from reading. Consequently, students already disadvantaged by the schooling system (to be discussed further on), are further disadvantaged at tertiary level.

Figure 2.3: Traditional Academic Cycle – (Rose, Rose, Farrington & Page, 2008)
In an effort to overcome barriers to learning imposed by traditional academic cycles, the first phase of the ‘RtL’ cycle is used to address the inequitable suppositions of the traditional academic cycle. Instead of insisting students spend their time out of lectures independently reading abstract course material, which can be demotivating for additional language learners, class time is used to assist students in reading difficult texts with critical comprehension (Rose, 2008). Similarly, class time is used to guide students through the writing process. See Figure 2.4 below.

**Figure 2.4: Scaffolding Academic Cycle** – (Rose, Rose, Farrington & Page, 2008)

The scaffolding academic cycle’s phase’s gives rise to the six stage ‘RtL’ cycle which is used in classrooms to raise students’ literacy skills. See Figure 2.5. The methodological assumptions of this model are extensive. Due to word limitations, this paper will only elaborate on three of the more significant theoretical assumptions which comprise this literacy strategy. These include: Halliday, language as a text within a social context; Vygotsky, learning as a social process; and Bernstein, education as a pedagogic discourse in maintaining inequality. Halliday and Vygotsky’s theoretical assumptions offer a more detailed discussion of ‘RtL’; whilst, Bernstein’s theoretical assumptions offer more detailed insights into the causes of unequal literacy outcomes in countries such as Australia and SA, of which ‘RtL’ aim to address.
2.3 Theoretical Underpinnings of ‘RtL’

2.3.1 Halliday- Language as a Text within a Social Context

The findings of various literacy tests, discussed in the introductory chapter, provide reasonable evidence that reading texts in English is an immensely challenging task for non-native speakers of English, more so for SA learners who have not been afforded opportunities to develop CALP in either their mother-tongue (L1), or additional language (AL) used as the medium-of-instruction (MOI) at school (Hart, 2009) This is because the ability to grapple with the complexities of reading and writing involves the ability to recognize patterns of language on three different planes (Halliday, 1996) See Figure 2.6.
1. **Level of the text** (discourse semantics – beyond clausal level): readers need to be able to recognize what the text is about and how it is organized. For example, students need to be able to recognize sequence of events in narratives, or chunks of information in factual texts. This entails a recognition and interpretation of the genre of the text, which would then allow learners’ to subscribe the text to a specific purpose and organization. See Figure 2.7.

![Figure 2.7: Types of Genres within the SA Curriculum](image)

Acevedo, 2010

2. **Level of the sentence** (lexico-grammar – clausal level): readers need to be able to recognize the arrangement of words within phrases while simultaneously recognizing the function of each phrasal component. For example, readers need to be able to recognize the subcomponents of clauses that provide information about processes (what is being done – verb phrases); participants (who or what the sentences are about – noun phrases) and circumstances (where, when, why and how). However, this may prove problematic at first for SA learners as they may battle to identify subcomponents of clauses due to an absence of syntactic development/awareness in their L1 (lack of a common underlying principle, Cummins, 1991). As mentioned already, most learners choose English as their MOI from the first day of school and subsequently do not develop sufficient linguistic awareness/proficiency of their L1. Consequently, learners have limited ‘pegs’ to build their L2 proficiency on.
3. **Level of the word** (graphology): readers need to be able to recognize what each word means within the text and how individual letters are arranged to form particular words. In other words, learners need to be able to understand how individual symbols come together to form individual words.

Because of the complexities of accessing texts, as illustrated above, it is argued that the teaching of literacy needs to be ‘simplified’ (complex patterns broken down) to assist learners in accessing all three levels (Rose & Martin, 2005; Hart, 2009). By breaking down the text, the task becomes less stressful, and students are able to make sense of them because an understanding at a global level (genre) offers the foundation for students’ understanding of the text overall. Genre’s then offer insight into the texts’ field, tenor and mode\. Similarly, individual sentences can only make sense in relation to other sentences that come before or after it and these links need to be made clear to students (Rose, 2006; Hart, 2009). Equally, words within a text only make sense in relation to words within close proximity. By ensuring students understand what the text is about (discourse semantics), and understand how clauses within the text are arranged (lexico-grammar), students will be better equipped to recognize the meaning of individual words (graphology). According to Rose (2006), the ability to understand these complexities provides students access to written codes of knowledge, and the ability to unlock the meaning of ‘devices’ used to convey meaning. This is important for the SA context.

Given that learners within SA senior phases of schooling and tertiary education are required to read ‘specialized’ academic material to access curriculum content, an ability to access the three layers of texts becomes crucial. However, most educators are of the opinion that the availability of technical terms, together with their definition, is sufficient enough for English Second Language (ESL) learners in accessing meaning within abstract, technical materials (Cohen, Glasman, Rosenbaum-Cohen, Ferrara & Fine, 1978). Significant research has shown that a mastery of technical terms/vocabulary is not the solution to accessing academic content (Selinker, Todd-Trimble & Trimble, 1976). Rather, access to non-technical aspects of texts such as specialized referencing devices (for example, lexical and grammatical cohesive devices as well as theme and rheme patterning) created greater barriers in accessing meaning. Therefore, problems related to the accessibility of meaning, according to Rose (2006), is often closely related to a lack of information and attentiveness to the function of rhetorical devices used within texts. Given the problems related to the sequencing and pacing of the literacy development curriculum in SA (to be discussed later), together with an absence of explicit instruction in the meaning associated with the use of rhetorical devices in texts within the school curriculum, students at tertiary level need intensive instruction/scaffolding in how meaning is conveyed in academic texts, and not only assistance in accessing technical terms found within academic material\. This leads us to a discussion of the second theoretical assumption underpinning ‘RtL’ – Vygotsky.
Current pedagogic practices in SA are closely aligned with the incremental learning model, formalised through Piaget’s theory of innate developmental stages. In other words teachers provide a diagnostic form of assessment, and then present activities/tasks to learners based on their assessed abilities (Rose, 2004). According to Rose (2004), Progressivists view this practice as ‘learner-centred’. The problem though is that the ‘ability’ gap is rarely closed because teaching and learning tasks are controlled by the competence of learners’. ‘RtL’; on the other hand, aims to close the abilities gap by incorporating aspects of Vygotsky’s theory of social learning into its pedagogic practice. ‘RtL’ incorporates three fundamental aspects of Vygotsky’s theory of learning as a social process. This section will examine these by discussing firstly, social interaction as a pre-requisite for the acquisition of cultural tools; secondly, mediated learning; and thirdly, the zone of proximal development (ZPD) where mediated learning is deemed more successful.

According to Vygotsky students ordinarily develop advanced forms of reasoning and awareness through collaboration with others more accomplished than themselves (Schaffer, 2004). It is through these social interactions that learners’ acquire critical cultural tools needed to participate in society. For the purpose of this study, these tools relate to communicative skills and important orientations to reading that students need in order to be able to access pedagogic strategies used for the development of literacy skills. Furthermore, these tools are considered one and the same as Bernstein’s restricted and elaborated codes of consciousness (Discussion to follow). Because most African learners come from oral cultured families, ‘tools’ related to elaborated codes of consciousness are not necessarily passed on to these learners before school. Therefore, it becomes critical to employ literacy intervention strategies that address this obstacle -‘RtL’ was designed with this barrier in mind.

Already mentioned above, Vygotsky put forward the idea of learning as a social process and postulated that the acquisition of cultural tools (orientations to reading) needed to access texts should take place through social interaction (Schaffer, 2004). Because of this, language communication that takes place within classrooms should be seen as not only a vital source of input for communication, but also a crucial part of cognitive development. This is because language becomes the ‘tool for thought’ or channel of mediation in the development of CALP (Mitchell & Myles, 2004). Consequently, it is language that guides learners’ thoughts and directs their attention to important rhetorical devices within academic texts. This highlights a significant link between the understanding of academic texts, and communication. Communication facilitates thinking, which means that the learning of literacy skills becomes a mediated process (Schaffer, 2004). However, associations between students’ own frames of references, and abstract concepts presented within academic material needs to be developed. For learners who already have had access to some rhetorical devices,
a process of assimilation takes place. However, for SA learners, because access to such devices in their L1 is limited, a process of accommodation takes place and can be problematic and time consuming. Nevertheless, it is during this mediated process that language supports learners in their development and control of their unique ‘mental’ tools, or ability to access the three layers of texts as discussed in Halliday’s stratified model of language (Mitchell & Myles, 2004). Though, the success of this process is dependent upon shared processes and face-to-face interaction. This is because learners, through interpersonal communicative strategies, ‘pool’ their understanding of the intricacies of academic texts, and cooperatively negotiate meaning and understanding. This would not necessarily be possible if tackled independently. Conversations with highly trained participants (educators) are vital for this process as the thoughts, and insights of these educators are internalized by learners, resulting in greater control of mental processes. Similarly, conversations with peers (peer scaffolding) and educators are important as they are considered the origin of new language; and consequently, new thought (Vygotsky, 1978). However, this may be problematic for the SA context as few teachers possess the qualifications, or English native-like proficiencies needed to generate ‘new’ language. If the National Department of Education can overcome this barrier, the application of ‘RtL’ would ensure adequate social interaction takes place as it follows an Initiate – Respond – Feedback (IRF) cycle (Lemke, 1990; Rose 2006). This provides learners with the language, and feedback, necessary to comprehend academic material. Within this cycle the progression from shared/interpersonal speech, to intrapersonal/inner speech allows CALP to be developed. However, this is not a random process and takes place through explicit scaffolding within student’s individual ZPD’s.

Learners are usually required to demonstrate what they have learnt through written assignments. Complex patterns of language are needed to assist students in the successful completion of these tasks. However, if left to develop this sophisticated grasp of language on their own, most students from working class, oral cultured families would fail. Therefore, the use of social interaction, in supportive environments, assists these learners in developing more advanced levels of understanding of academic materials than they would normally be able to develop individually (Vygotsky, 1978). Vygotsky (1978) referred to this ‘metaphorical assistance/place’ as the ZPD. It is within this zone that marginalized learners are given the ‘tools’ to complete tasks (understand academic material) independently. The ZPD refers to the gap between an individual learner’s actual academic literacy capabilities and their potential level. Because learners develop the ability to imitate patterns of thought, or language spoken by educators through intensive scaffolding, they increasingly develop the ability to replicate tasks (comprehension of academic material and ability to reproduce their own pieces of academic texts) without the assistance of others (Mitchell & Myles, 2004). They therefore, develop academic autonomy. This is because educators using ‘RtL’, mediate within learners ZPD, how to access and comprehend academic texts. The amount of assistance is gradually released until learners are able to integrate the new skills into their own consciousness. See Figure 2.8.
The support offered by educators gradually becomes internal and self-governing and is indicative of a successful process of scaffolding. However, some limitations to the applicability of Vygotsky’s Socio-Cultural theory of learning within the SA context are marked.

Certain aspects of Vygotsky’s theory in ‘RtL’ may have issues of practicality in SA. For example, Vygotsky encourages face-face/one-on-one interaction during the mediation process. This is almost impossible with class sizes of over one hundred students. At the same time, if only the educator is deemed to be ‘expert’ in the school discourse (and even this proposition is debatable with recent teacher qualifications being revealed), one-on-one attention for students who are at risk of failing may lose out. This is due to difficulties in differentiating each individual learner’s ZPD as this process requires close interaction with individual learners if the process of negotiated discovery is to succeed (Schaffer, 2004).

Vygotsky’s theory of mediated learning and scaffolding has major implications for classrooms attempting to eradicate educational oppression. Often, impoverished reading materials are given to non-native speakers of English to ensure the complexity of the task is reduced to ensure learners have equal opportunities of accessing materials. According to Cummins (1991), these tasks are rarely located within quadrant D. See Figure 2.9. However, access to meaning of texts located within Quadrant D is crucial for success at Tertiary levels of education. For this reason, ‘RtL’ attempts to scaffold learners through the meaning of cognitively demanding, and context reduced texts, to ensure learners develop the necessary skills to access such texts.
2.4 Poor Literacy Rates amongst Impoverished Learners

The introductory chapter highlights an important reality for SA. There is a high level of distributional and social inequality within the educational system (See Figure 1.3). Often the achievements of successful learners are attributed to innate biological abilities and cultural background (Rose, 2006). However, attributing success to these factors is the educational systems way of legitimizing individual failure and inequality (Bernstein, 1990). Rather, Rose (2006) argues that unequal schooling outcomes originate as a result of literacy development curriculums failing to teach reading skills explicitly after the first two years of schooling. This scenario gives rise to greater issues relating to the poor sequencing and pacing of the literacy development curriculum, commonly referred to as the hidden curriculum. See Figure 2.10.

Figure 2.9: Cummin’s Four Quadrants

Figure 2.10: A Metaphor for the Current Crisis in the SA Curriculum (Rose, 2006)
In order to understand the hidden curriculum, and the consequences thereof, a discussion of Bernstein’s roles of instructional and regulative classroom discourse is needed. Therefore, this section will; firstly, briefly explore the importance of reading, which provides the basis for a discussion of Bernstein’s model of schooling as a pedagogic device. Secondly, an explanation of how the sequencing and pacing of the literacy development curriculum (the transmission of and instruction in certain codes of consciousness) excludes learners from succeeding will be carried out.

According to Rose (2006), reading forms the basis for all school/tertiary based activities in Australia. Therefore, educators of all subject areas need to be developing systematic approaches to the development of core reading skills. This is not dissimilar to the SA curriculum. However, the SA NCS places heavy emphasis on writing skills, resulting in the teaching of writing taking center stage in classrooms and tertiary based remedial academic writing courses. One needs to bear in mind though, that in order for students to demonstrate what they have learnt in writing, they need to be able to read subject/course materials first (Rose, 2006; Hart, 2009). Therefore, reading becomes the crucial pedagogic medium for school/tertiary, and access to reading becomes crucial for succeeding (Bernstein, 1990). According to Rose (2007), it is therefore imperative that students develop the necessary skills needed to read texts independently as early as possible. This becomes problematic in SA because the NCS makes available unequal development opportunities for crucial orientations to reading. Consequently the negative impact that the “role of instructional and regulative classroom discourse” has on maintaining unequal opportunities and outcomes for marginalized learners is highlighted (Rose, in Muller, Morais and Davies, 2004). Therefore, Bernstein attributes the failure experienced by marginalized learners to that of the educational system and not the individual learner.

One of the numerous reasons for educational failure, “is [the] complex functions of the official transmission of the school and the local acquisition process of the family (Bernstein, 1996; Nash, 2006)” Further, Bernstein attributed the unequal distribution of quality education across all social groupings to that of the school and home as social configurations, and to the procedures of teaching and learning as a practice (Bernstein, 1975; Nash, 2006; Rose, 2007). This is because speech is shaped by principles/rules, which are then shaped by class associations (Bernstein, 1996; Rose, 2007). Middle-class discourse has the tendency of being labeled elaborate; whilst, working-class discourse tends to be restricted (See appendices for discussion) (Rose, 2006). According to Bernstein (1996), this accounts for the fact that working-class children are more inclined to underperform compared to their middle-class counterparts. This is due to limitations of speech codes encountered by working-class children. According to Nash (2006), it is important to note that these ‘codes’ of speech enable academic performance and do not confer competence, meaning that schools should be working hard to find appropriate pedagogic strategies that assist working-class children in responding to, and producing meaning with appropriate codes of speech (which are elaborated codes).
Having access to either of these codes presents learners’ with differing ways of inferring meaning from experience (Bernstein, 1996). Halliday offers a more succinct definition of these codes (elaborate and restricted) and defines them as either spoken or written forms of language (Halliday, 1989). Although this paper will make use of Bernstein’s model of schooling and the subsequent negative consequences thereof, this paper will refer to Halliday’s codes of consciousness from here on. Both written (elaborate) and spoken (restricted) codes of knowledge require different levels of skills, with written codes of language being more cognitively demanding (Bernstein, 1996; Halliday, 1989). This is because speaking comprises face-to-face interaction with the conjecture of meaning often aided by nonverbal cues. Contrasting this, are written codes of language which are often abstract, as meaning is embedded within specialized language patterns (rhetorical devices). The disparity with regards to the access of codes of knowledge is illustrated in the orientation to either spoken or written forms of knowledge before school in SA. According to Rose (2006), parents from literate, middle class families spend approximately 1000 hours reading to their children before school. As a result, these children develop the skills needed to engage effectively with written texts; and therefore, learn to read with relative ease during the first few years of schooling. Conversely, children from oral cultured\(^{\text{xv}}\), working class families have little orientation to written texts (oral story-telling as opposed to written stories) and subsequently struggle to engage with written texts, resulting in them failing to develop the skills needed to become fluent readers within the first years of schooling\(^{\text{xvi}}\). The difficulties related to the reading of texts for working class learners are compounded year after year as the literacy curriculum places increasingly more demands on learners. Consequently, these learners’ fall further and further behind. This is because the educational system favors codes of knowledge that more affluent\(^{\text{xvii}}\) learners have access to (written codes), and which marginalized learners do not (Hart, 2009). This brings to light possible flaws with the sequencing and pacing of the literacy development curriculum, as impoverished students leaving the school system show little evidence of possessing the requisite written codes of consciousness. See Figure 2.11 below.
The disparity in achievements between middle class learners and working class learners is because the preparation of ‘successful’ students in acquiring necessary reading and writing skills is achieved covertly (indirectly) during the secondary phase of schooling where students are expected to already be able to independently learn from reading. Because of this assumption, large quantities of curriculum based content is given to learners for homework tasks, which provides students with crucial opportunities to practice independent reading and writing tasks for evaluation purposes. As a result, students who are able to independently read and write, acquire content knowledge as well as implicit knowledge of academic texts and their genres (Rose, 2004). Students who are unable to access these orientations to learning from reading are subsequently excluded from the literacy development cycle as the literacy cycle is hierarchical by nature and builds upon previously acquired knowledge and skill sets. In other words, a failure to meet literacy curriculum goals and objectives (Table A of Figure 2.11) within each phase further aggravates the accessibility of reading and writing skills within higher phases. Time constraints placed upon secondary phase teachers, as well as tertiary lecturers in completing school/university based curricula means these educators have little time to teach marginalized learners how to read effectively (Rose, 2004). Therefore, it is plausible to state that the outcome of the pacing of the literacy curriculum is twofold: students from more affluent, literate families are given more opportunities to succeed; whilst, learners from working class, oral
cultured families are excluded from acquiring the skills needed to both access, and succeed at higher education (Rose, 2007; Hart, 2009).

2.5 Conclusion

Chapter Two offered a brief discussion of various reading and writing pedagogies which formed the basis for a more detailed discussion of ‘RtL’. Chapter Two then highlighted that the synthesis of various reading and writing pedagogies enables ‘RtL’ to fast track literacy development across the curriculum. The findings of recent evaluations of ‘RtL’, within an Australian context were presented, which showed that the weaker the student, the greater the gains in literacy development; thereby, democratizing the classroom. This is because ‘RtL’ provides intensive scaffolding of language patterns found in academic texts. Three of the major theoretical underpinnings of ‘RtL’ were discussed. Halliday’s theory of language as a text within a social context, and Vygotsky’s theory of learning as a social process provided the basis for a discussion of ‘RtL’, whilst Bernstein’s theory of education as a pedagogic discourse provided the rationale for the implementation of ‘RtL’ within the SA Context.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

Chapter Two examined relevant literature to this study and reported evidence concerning the success of ‘RtL’ for the Australian context. Further, numerous concerns were raised about the applicability and efficacy of this strategy for the SA context. Chapter Three presents the methodological approach used to test the efficacy and applicability of ‘RtL’ at UKZN, SA for an English Academic Writing module. This chapter will explain how various methods will be used to collect and analyze the data, in order to negate, or support the literature and evidence concerning ‘RtL’, but within the context of UKZN, SA.

3.2 Defense of Research Design and Philosophical Assumptions

I first became interested in researching academic literacy development during my undergraduate years at UKZN, which was stimulated further after tutoring a thirteen year old, African student. After seven years of formal schooling, he was still unable to read C-A-T. Due to the erroneous sequencing and pacing of the literacy development curriculum, as discussed in the literature review, learners like this student are not being given the tools to succeed. It was for this reason that I felt compelled to dedicate my time to the discovery of alternative practices that had proven track records of improving marginalized learners’ literacy skills. However, finding low cost, quality alternatives for the SA context is not a simple process due to the myriad problems that education faces in SA. Further, I wanted to engage in research that had as its central aim, pedagogic change that could lead to improved literacy achievements regardless of socio-economic status of the learner. At present, research in the field of academic literacy development is vast, yet seemingly inapt to the context of SA. For example, a limited number of studies take into account educational systems that comprise 11 official languages as the MOI at school. For this reason, I wanted to be able to bridge the gap between practice and research in an effort to overcome the persistent failure of up-to-date research influencing literacy development practices in SA, specifically at UKZN (Somekh, 1995). This led me to the action research design frame as it would enable me, as the researcher (practitioner based); to research the pedagogic practices of my own institution (UKZN), and assist in my own professional development while simultaneously ensuring that my research leads to pedagogic change.

The research design frame of this study is described as a long-term action research because its goals are to introduce pedagogic change while simultaneously interpreting and evaluating that change within a specific context – UKZN, SA (McNiff, 2002). Further, the educators involved in the study
are the agents introducing the change (Rose, 2008). Moreover, an action research was chosen because it is an appropriate design frame for the needs of my study because pedagogic change does not happen overnight. Strategies need to be employed, evaluated and modified until the desired outcome is met. Furthermore, engaging in a long-term action research project provides an environment conducive to evidence-based professional teacher development as there is an element of data collection and teacher reflection during the analysis of the data (Kemmis & McTaggart, 1988). Being a newly qualified teacher, teaching within a context that is still trying to deal with the consequences of an unequal educational past, the action research provides an environment conducive to self-reflective enquiry which is needed to improve my understanding of literacy practices in order to maximize social justice (Carr & Kemmis, 1986). It is important to point out here that the aim of this action research is not to develop new philosophies pertaining to the theoretical assumptions of ‘RtL’ as this has already been achieved. Rather, through an action research, I hope to acquire new insights needed to improve (change) the current practice/implementation of ‘RtL’ at UKZN if needed. This is because the single most important objective of the action research is not to create new knowledge; but rather, to improve practice (Pring, 2006). Although a contentious statement as new knowledge will inevitably be acquired, the purpose of this action research is to make use of new knowledge in implementing pedagogic change. Therefore, engaging in an action research project requires a commitment on my behalf to change pedagogic practices based on discoveries uncovered within the action research cycle (Thomas, 2009). This is done through a five stage continuous cycle, of which this paper falls within stage five. See Figure 3.1.

**Figure 3.1: The Action Research Cycle**

My research questions stem from a desire to evaluate ‘RtL’ as a possible intervention strategy for marginalized, non-native speakers of English at UKZN. Because the application of ‘RtL’ has already
been tested in numerous educational contexts (Australia and Sweden), and its subsequent success rates reported on (See literature review), it seems plausible to hypothesize a similar rate of success at UKZN. However, a number of factors were highlighted within the literature review which raise concerns for the applicability, efficacy; and consequently, the success of ‘RtL’ at UKZN. Therefore, these uncertainties led to my first research question: Is the ‘Reading to Learn’ strategy an effective pedagogic approach for the University of KwaZulu-Natal’s context? In an effort to make an empirical judgment as to whether ‘RtL’ would be an effective strategy or not, the study needs to analyze students’ writing scores over the duration of the module. Therefore, my second research question (What happens to students’ academic writing scores after one semester when the ‘RtL’ strategy is integrated into an English Academic Writing course at UKZN?) considers the changing scores of students’ writing assignments throughout the one semester module in an effort to test whether there are any changes to students’ literacy scores, and whether they are statistically significant or not.

At the initial conception of this study, it could be argued that it comprised attributes of both nominalist and realist ontology and characteristics of positivist and interpretivist epistemology. Research question fulfills the nominalist/interpretivist paradigm with conclusions over the efficacy of ‘RtL’ being made up of multiple constructions that are context-bound, and experientially and socially bound (Guba & Lincoln 1994). Research question two fulfills the realist/positivist paradigm because the reality about the efficacy and success of ‘RtL’ is based purely on quantitative data; thereby, offering an independent reality external to the perceptions of the researcher (Pring, 2006). However, because the application of ‘RtL’ makes use of a process-based approach to writing (See data collection), students are given multiple opportunities to produce extended pieces of writing, which are assessed. As the assignments are given numerical scores according to a predetermined, holistic marking rubric, it becomes clear that research question two should also fit within the interpretivist paradigm. In other words, because I, as the marker, had to make a decision as to which category within the rubric a student’s writing fitted into, elements of subjectivity inadvertently crept into the process. Choinski, Mark and Murphy (2003) argue that the adoption of marking rubrics for student assessment offers an objective framework with which educators can carry out assessment procedures. However, Shay (2008) questions whether this process is indeed objective as course assessment with rubrics are often socially situated acts with disensus leaving the process interpretive. Therefore, research question two is considered interpretivist. In light of the above argument, this study comprises characteristics of nominalist ontology and interpretivist epistemology.
3.3 Validity and Reliability

Validity refers to the “best available approximation to the truth or falsity of any given inference or conclusion” made about a particular study (Trochim, 1997). In other words, it refers to the strength of the inferences that can be made based on an analysis of this study’s data. **Internal validity** refers to the study’s ability to say, with a certain amount of truth, whether ‘RtL’ made a difference (positive or negative) to literacy scores. In an effort to ensure that the difference in scores was not influenced by a ‘testing threat’xxix, which would decrease the study’s internal validity, the assignments administered made use of different assignment topics (Trochim, 1997; Bechhofer and Paterson, 2000). Although the same criteria were used to measure literacy skills, a learned effect, or ‘pre-test’ effect was removed because students had to apply the same literacy skills being taught, to each different assignment. Further, in an effort to ensure internal validity was not compromised due to the number of students who did not hand in assignments, which would have provided a ‘mortality threat’xvii, only valid scores were used – scores from assignments that were handed in (Trochim, 1997).

**Construct validity** refers to the ability of this study to employ acceptable definitions and constructions of terms used in other similar studies. In other words, construct validity questions whether the operational definitions used in this study are able to be generalized to other studies evaluating ‘RtL’ (Trochim, 1997; Cohen, Manion & Morrison 2010). Firstly, this study provided a clear, working definition of what the term literacy represents as per UNESCO (See Literature review). Secondly, in testing the literacy skills of students, the same marking criteria, with clear explanations of each criterion were used as previous studies which evaluate the efficacy of ‘RtL’. These criteria (See appendices – methodology) were developed by the University of Sydney after extensive research in the field of Academic Literacy development and Linguistics. Therefore, by offering a clear definition of what this study refers to as literacy, and by employing the same operational definitions of marking criteria developed by previous studies which measure literacy skills within the framework of ‘RtL’, this study ensures the ‘inadequate pre-operational explication of constructs threat’xxii does not lessen this study’s construct validity (Trochim, 1997).

**Conclusion validity** takes into account the statistical power of the study and is strengthened by the study’s sample size and alpha level of the data (Trochim, 1997). The sample size looks at the number of units available for the study. The law of large numbers in research states that the greater the sample size, the smaller the standard error (Field, 2009). Therefore, a criticism of this study is that, because the population of ACCS students at UKZN is less than 200 students, the entire population could have been used as the sample unit as previous studies have done. However, it is generally acceptable to make use of a sample size of 10% of the population for studies which have a population between 100 and 1000 as this study did (Trochim, 1997). Furthermore, if the sample size is randomly selected (See
argument below), and the population is homogenous (taking into account ethnicity and language, not age, the ACCS module is homogenous – participants are all non-native speakers), then a small sample size can still be representative of the population (Trochim, 1997). Conclusion validity is also measured by the study’s alpha level, which refers to the likelihood that the change in literacy scores is due to chance and not the intervention administered. To increase the study’s conclusion validity, one needs to take into account the P-value, or level of significance for each variable (See Table 4.2). The variables (matched pairs) which reported a less than 1% chance that the difference in literacy scores is due to random occurrence were discussed in Chapter Four; and therefore, add to the study’s conclusion validity.

Reliability looks at the consistency of the studies measurements, or degree to which an instrument measures something the same way, each time it is used, under the same conditions, with the same subjects (Trochim, 1997). So technically speaking, test/re-test reliability necessitates the same or similar score in Assignments 1 - 7 if the same measurement level is used, which it was. However, because we are testing the efficacy of an intervention strategy that is supposed to assist in the development of literacy skills, one would expect/hope the scores of each assignment to be different. Does this then abrogate the issue of reliability for this type of study? According to Thomas (2009) if the study aims to test changing elements of the study (literacy scores), then yes, reliability is not much of an issue in validating the study.

3.4 Ethical Considerations

Ethics “refers to the search for rules of conduct that enable [researchers] to operate defensibly in the context in which [they] have to conduct [their] research (Pring, 2006:142).” Consequently, several ethical considerations were taken into account when conducting this research and data collection. These included rules to safeguard; first and foremost, the participants (students from my tutorial groups). It is a UKZN policy that all student grades are kept for a duration of two years after completion of the module should any studies need to make use of students’ grades. The students were briefed about the possibility of their grades being used in this study which would evaluate the efficacy of ‘RtL’ according to their changing literacy scores. Students were also informed that their consent to partake in the study was voluntary and that their grades would remain confidential within the initial stages of the study and totally anonymous within the reporting of the study’s findings (Bera, 2004). The collection of the data was also non-invasive as literacy scores formed part of the formal, credit bearing course at UKZN and students were not asked to undertake extra tests or assignments which could have created a stressful environment for students. The data is stored in electronic format on my PC and that of the course organizer. The data on my PC does not have the names of students which
makes it impossible to link literacy scores to respective students; thereby, ensuring confidentiality and anonymity is upheld.

### 3.5 Data Collection

This study makes use of primary data that was collected over the duration of the module (January – July 2010) and NOT during the Easter vacation of 2011. There were two main reasons for this. Firstly, I am interested in literacy development at UKZN within an SA context and accessing data once in the UK would have been problematic and costly. Secondly, I wanted to be part of the teaching process at UKZN while collecting the data to ensure correct data collection procedures were adhered to. The population (learners) of the ACCS module was alphabetically allocated to groups according to the first letter of their last name. Tutors were then randomly allocated to groups of students. Seeing as I was allocated 4 groups of students, the sample for this study consisted of 4/10 groups of students. However, I acknowledge that the sampling procedure may be left open for interpretation. On the one hand, the sampling procedure may be considered convenience sampling (non-probability sampling), resulting in the generalisability of the data being weak (Cohen et al, 2010). On the other hand, because the random allocation of student groups to tutor was dictated by the course organizer, the sampling procedure becomes more of a random process. Further, unless research can show that students’ literacy performance is directly linked to the first letter of students’ last name, the fact that students were organized into groups alphabetically, for all intents and purposes, the sampling procedure is considered to be random. Equally, each alphabetically arranged group of students had an equal chance of being allocated to my tutor groups (the groups which would become the sample group); therefore, further highlighting the random nature of the sampling procedure.

Because ‘RtL’ incorporates a process-based approach to literacy development (See Chapter Three Appendices), the data collected comprises seven pieces of formative and summative writing (See Table 4.3 for explanation).

Four stages were created for the application of writing assignments in ‘RtL’ at UKZN:

1 – Pre-writing stage: This coincides closely with the preparation before writing stage of the six stage cycle (See Figure 3.2). Students are given opportunities to brainstorm and plan their writing.

2 – Focusing on ideas: This corresponds with the joint reconstruction stage. Learners are given opportunities to collaborate with peers in a group composition.

3 – Editing of drafts: This forms the individual reconstruction phase. Learners are given opportunities to make use of detailed feedback in correcting their drafts.
4 – Final submission: This forms the independent writing stage. Learners hand in a final submission of their assignment topic.

**Figure 3.2: Six Stage Cycle of ‘RtL’**

Two separate writing tasks, together with an initial writing assignment at the onset of the module were set over the duration of the module which collectively comprises the seven pieces of writing (See Table 3.1):

- Initial – Diagnostic/Baseline testing
- Task 1 – Process of drafting and re-drafting (3 drafts per topic)
- Task 2 - More demanding task than the first (3 drafts per topic)

Students were expected to make use of detailed comments given on draft copies of their assignments in developing their final submission. Each sample of writing (qualitative data) was marked/codified according to an analytical rubric and the criteria for the analytical rubric were compiled using a discourse analytic approach. The rankings were pre-defined (See Appendices, Chapter 3, for Marking Criteria). Furthermore, the testing of students’ literacy scores was criterion-referenced as students had to fulfill a number of given criteria (Cohen et al, 2010).

It is important to note that previous studies evaluating the efficacy of ‘RtL’ used a slightly different approach to data collection. These studies made use of pre and post literacy scores only; and therefore, compared the difference in two sets of writing scores. This is an alternative approach that this study could adopt. However, because this study makes use of two different types of texts to
scaffold academic literacy, by collecting the pre and post literacy scores’ (data), together with writing scores during the module, this study hopes to get a better understanding of students’ literacy development at different stages of the module, as well as with the use of different types of texts used to develop literacy skills.

3.6 Description of the Data

Table 3.1: Descriptive Table of Data

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Description</th>
<th>Measurement Level</th>
<th>Sample Size (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>Extended piece of writing used for diagnostic or baseline testing purposes.</td>
<td>Continuous</td>
<td>47</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>Extended piece of writing forming the introductory phase of an academic argument for Task 1. Academic text used as model.</td>
<td>Continuous</td>
<td>50</td>
</tr>
<tr>
<td>Assignment 3</td>
<td>Extended piece of writing forming the body of the same academic argument as Assignment 2, and forming part of Task 1. Academic text used as a model.</td>
<td>Continuous</td>
<td>49</td>
</tr>
<tr>
<td>Assignment 4</td>
<td>Extended piece of writing forming the conclusion of an academic argument – Task 1. Academic text used as a model.</td>
<td>Continuous</td>
<td>51</td>
</tr>
<tr>
<td>Assignment 5</td>
<td>Extended piece of writing forming the introductory phase of an academic argument for Task 2. Non-academic text used</td>
<td>Continuous</td>
<td>40</td>
</tr>
</tbody>
</table>
### Variable Name | Description | Measurement Level | Sample Size (N)
--- | --- | --- | ---
Assignment 6 | Extended piece of writing forming the body of the same academic argument as Assignment 5, and forming part of Task 2. Non-academic text used. | Continuous | 44
Assignment 7 | Extended piece of writing forming the conclusion of an academic argument – Task 2. Non-academic text used. | Continuous | 40
Test 1 | Extended writing task. Students were given an essay topic and had to produce a full essay under test conditions. | Continuous | 51
Test 2 | Short questions relating to grammatical and lexical cohesion. Written under test conditions | Continuous | 48

**NOTE:** Sample size is based on valid scores only.

The ACCS module at UKZN is a one semester, optional, 16 credit bearing course for students who feel they could benefit from formal instruction in academic reading and writing at tertiary level. Most of the learners were non-native speakers of English. It is important to note that Assignments 2 –4 provided students with an academic text as their model. Assignments 5-7 made use of a text found within an entertainment magazine similar to ‘Glamour’ and ‘Hello’. Therefore, the text did not model academic patterns of language. However, students were asked to transform the text into an academic text by making use of language patterns similar to that within the first text.

### 3.7 Methods of Data Analysis

Both descriptive and analytical statistics will be employed for the analysis of students’ literacy scores:

1. Descriptive statistics will be used to describe the central tendency (average of test scores split into mean and median) and dispersion of students’ literacy scores (e.g. mean and standard deviation for normally distributed literacy scores or median and inter-quartile range for non-normally distributed scores).
scores). Chapter Four/Chapter Four Appendices offers a more detailed discussion of the data and whether it is normally or not normally distributed.

2. Analytical statistics will be used to compare the sample distributions of students’ literacy scores. It is very likely that the distributions for most scores will not be normally distributed, meaning a parametric test (for example, a paired two-sample $t$-test), which assumes normality, would not be suitable to test for a statistical significance between two samples. Rather, a non-parametric test (for example, the Wilcoxon signed-rank test), which is distribution free, would be better suited for assessing statistical differences (and mean rank of) between two samples.

The Wilcoxon signed-rank test is used to determine whether there is a statistical difference between two samples, or groups, or equivalently, whether both samples and groups come from the same population. It is important to note that when comparing two separate test scores with different participants in each test (ACCS scores from 2010 versus 2011); the Wilcoxon rank-sum test, or Mann-Whitney test is appropriate (assuming the data is not normally distributed). However, because this study compares two test scores with the same participants in both tests (all scores are from the ACCS module in 2010), the Wilcoxon signed-rank test is better suited. The two samples being compared are indicated in Table 3.2 – Pair-wise samples. Matched pairs indicate that the same student is compared across samples to test whether there is an improvement across assignments for the same student. The Wilcoxon signed-rank test works in a similar way to the dependent samples $t$-test which is used for parametric data. See Chapter Three Appendices for a discussion. It is important to note that there is a trade-off between using non-parametric versus parametric tests. The statistical power of non-parametric tests tends to be ‘weaker’ than their parametric counterparts. However, non-parametric tests such as the Wilcoxon signed-rank test do not require, or adhere to the same ‘rigid’ assumptions of normality assumed with parametric tests. At the same time, non-parametric tests allow for ‘real-world’ data to be analyzed as most ‘real-world’ data is not often distributed normally (Field, 2009). However, this does not assume the findings are distorted in anyway.
Table 3.2: Pair-Wise Samples for the Wilcoxon Signed-Rank Test

<table>
<thead>
<tr>
<th>Paired variables</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1 + Assignment 4</td>
<td>Assignment 1 – diagnostic/baseline testing. Assignment 4 – summative component of Task 1. Assignment 4 is compared to Assignment 1 to see if literacy scores are increasing or not.</td>
</tr>
<tr>
<td>Assignment 2 + Assignment 3</td>
<td>Assignments 2 and 3 form part of the drafting and re-drafting of Task 1. Assignment 3 is compared to Assignment 2 to see if literacy scores are increasing or not.</td>
</tr>
<tr>
<td>Assignment 3 + Assignment 4</td>
<td>Assignment 3 is part of the drafting stage of the process approach to writing. Assignment 4 is the final submission of the process approach and forms part of the summative assessment of Task 1. Assignment 4 is compared to Assignment 3 to see if literacy scores are improving within all stages of the process approach.</td>
</tr>
<tr>
<td>Assignment 5 + Assignment 6</td>
<td>Assignments 5 and 6 form part of the drafting and re-drafting of Task 2. Assignment 6 is compared to Assignment 5 to see if literacy scores are increasing or not.</td>
</tr>
<tr>
<td>Assignment 6 + Assignment 7</td>
<td>Assignment 6 is part of the drafting stage of the process approach to writing. Assignment 7 is the final submission of the process approach and forms part of the summative assessment of Task 2. Assignment 7 is compared to Assignment 6 to see if literacy scores are improving within all stages of the process approach.</td>
</tr>
<tr>
<td>Assignment 4 + Assignment 7</td>
<td>Both Assignments 4 and 7 form the summative component of Task 1 and 2. Assignment 7 is compared to Assignment 4 to see if literacy scores improved during both stages of the process approach of Task 1 and Task 2</td>
</tr>
<tr>
<td>Assignment 1 + Assignment 7</td>
<td>Assignment 1 offered a baseline of students’ literacy skills. Assignment 7 was compared to Assignment 1 to see if there was an overall improvement in literacy scores.</td>
</tr>
<tr>
<td>Assignment 7 + Test 2</td>
<td>Assignment 7 and Test 2 assessed students on the same material content. However, Assignment 7 assessed students’ understanding in an extended piece of writing whilst Test 2 assessed students’ understanding in a shortened, decontextualized, inauthentic text. Test 2 was compared with Assignment 7 to test whether students found the decontextualized task easier than the extended writing task.</td>
</tr>
</tbody>
</table>

* The above paired samples take the literacy scores of the same student and compares them to see if there is either a decrease or increase in scores between samples (assignments)

At no point will this paper attempt to generalize the findings for ALL Universities across SA. This is a study for the ACCS module at UKZN only and is intended to develop the author’s
understanding of how best to scaffold learners’ academic reading and writing at this University, within this module only.

3.8 Limitations to the Study

Firstly, five teachers were involved in tutoring the module. Only the author’s groups were included in the study as it is only the author who is researching the efficacy of ‘RtL’. To avoid problems of subjectivity or bias towards the intended study, the author’s marking was moderated to ensure overall consistency with other tutors was met. Secondly, this study should ideally be tested over a longer time frame (2 semesters) but because the participants of the study are only involved in the module for one semester, it was decided to test the intervention after one semester. The author of this research aims to extend this to more than two semesters with a separate pilot for the next cycle of the action research. This is because this particular intervention is best suited as a long-term intervention.

3.9 Conclusion

This chapter offered a discussion of the methodological assumptions and processes of this study. The study adopts a nominalist ontology and interpretivist epistemology. This gave rise to a long-term action research design frame. The research questions that were derived for this study, gave rise to a mixed methods approach. Qualitative data (students extended writing samples) was collected and then codified (quantitative data) to form the data to be analyzed. The qualitative data was codified through the use of an already established marking rubric/criteria. The actual data was collected between January 2010 and July 2010 and comprised seven pieces of extended writing samples:
Diagnostic/baseline test – Assignment 1
Task 1 – Assignments 2, 3 and 4
Task 2 – Assignments 5, 6 and 7.
Two extra pieces of writing were included in the data but formed part of the test component of the module. Both descriptive and analytical statistics were used to analyze the data. The descriptive statistics provided information on central tendency and dispersion of the data; whilst, the analytical statistics, which used the Wilcoxon Signed – Rank test, showed whether the difference in paired sample scores was significant, and whether there was a general decrease or increase in literacy scores.
CHAPTER FOUR
ANALYSIS AND DISCUSSION

4.1 Introduction

Chapter Three described aspects of the research design, whilst also describing the data, data collection methods and methods of analysis. Chapter Four presents both the descriptive and analytical findings of the data. However, due to word limitations, a discussion of the operational definitions of descriptive and analytical data markers found in the descriptive and Wilcoxon tables, together with a rationale for their inclusion in the presentation of the findings is offered in the appendices. Chapter Four offers a detailed discussion of the findings by drawing on relevant literature from the literature review.

4.2 Presentation of Descriptive Findings

Table 4.1: Descriptive Statistics (See Chapter Four Appendices for discussion of descriptive markers)

<table>
<thead>
<tr>
<th>Task 1</th>
<th>Task 2</th>
<th>Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A1</td>
<td>A2</td>
</tr>
<tr>
<td>Mean</td>
<td>72.70</td>
<td>67.64</td>
</tr>
<tr>
<td>Median</td>
<td>74</td>
<td>68</td>
</tr>
<tr>
<td>IQR**</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Min.</td>
<td>58</td>
<td>54</td>
</tr>
<tr>
<td>Max.</td>
<td>92</td>
<td>78</td>
</tr>
<tr>
<td>N</td>
<td>47</td>
<td>50</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-0.638</td>
<td>0.004</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.014</td>
<td>-0.371</td>
</tr>
</tbody>
</table>

25th Percentile | 66 | 64 | 66 | 76 | 64 | 63 | 64 | 64 | 58 |
50th Percentile | 74 | 68 | 71 | 80 | 72 | 71 | 70 | 68 | 84 |
75th Percentile | 78 | 72 | 75 | 84 | 76 | 78 | 75 | 72 | 96 |

Notes: *Refers to Standard Deviation. **Refers to Inter-quartile range. ‘A’ refers to the respective assignment and ‘T’ refers to the respective test (see Table 3.1 for a description of the data).
Figure 4.1: Graphic Representation of Descriptive Statistics for Assignments 1 – Test 2
Figure 4.2: Summary Representation of Mean and Median Scores

4.3 Presentation of Wilcoxon Signed – Rank Test

Table 4.2: Wilcoxon Signed - Rank Test (See appendices for discussion of analytical markers)

<table>
<thead>
<tr>
<th>Task</th>
<th>Task 2</th>
<th>Summative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A3-A2</td>
<td>A4-A3</td>
</tr>
<tr>
<td>Z Statistic</td>
<td>-3.868</td>
<td>-2.555</td>
</tr>
<tr>
<td>P-Value</td>
<td>0.010</td>
<td>0.000</td>
</tr>
<tr>
<td>No. Negative Ranks</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>No. Positive Ranks</td>
<td>29</td>
<td>41</td>
</tr>
<tr>
<td>Mean Negative Rank</td>
<td>18.22</td>
<td>18.50</td>
</tr>
<tr>
<td>Mean Positive Rank</td>
<td>25.64</td>
<td>25.52</td>
</tr>
<tr>
<td>Ties</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td>48</td>
<td>49</td>
</tr>
</tbody>
</table>
4.4 Patterns Found within the Data Set – Discussion

Numerous trends have emerged after an analysis of students’ literacy scores and a discussion of these will be informed by the literature review. It is important to remind the reader that the literature review focused more on the theoretical assumptions and reported success rates of ‘RtL’ and did not offer a broader, detailed discussion of language acquisition theories in general. This is because the aim of this study was not to investigate theoretical revelations of academic writing development per se; but rather, to assess the applicability of an already developed approach to academic literacy development. Therefore, the discussion on changing literacy scores (patterns) within the ACCS module at UKZN (positive or negative) will be discussed in relation to ‘RtL’ only. However, due to word limitations, not all of the emerging patterns can be addressed. Instead, because this paper seeks to evaluate whether the implementation of ‘RtL’ is applicable to UKZN’s context (Research Question 1), a discussion of some of the more prominent changes in students’ literacy scores will be discussed (Research Question 2). This will be done by; firstly, discussing why the first half of the module showed signs of increased literacy scores; and secondly, why the second half of the module showed signs of decreased literacy scores. In explaining the decreased literacy scores, this paper will; firstly, discuss the difference in academic complexity experienced between the first and second half of the module together with a change in pedagogic practice; secondly, offer a discussion of how the type of text used to scaffold academic literacy development is important; and thirdly, offer a discussion on the types of codes of knowledge offered to students within the second half of the module and how sufficient time is needed to scaffold academic literacy development.

As already discussed in the description of the data (See methodology 3.6), Assignments 1; 4 and 7 formed the main three assignment topics and could be considered the summative component of the module; whilst, Assignments 2 and 3, and Assignments 5 and 6 comprised the process of drafting and re-drafting of Task 1 and Task 2; hence, also referred to as the formative components of the module (See Table 4.3 below). In other words, Assignments 2, 3 and 4 (Task 1); Assignments 5, 6 and 7 (Task 2); and Assignments 1, 4 and 7 (final summative mark for overall literacy progression) are to be compared in order to identify if students literacy scores improved or not; and therefore, whether ‘RtL’ is effective at UKZN.
Table 4.3: Breakdown of Assignments into Formative and Summative categories

<table>
<thead>
<tr>
<th>Task</th>
<th>Assignment</th>
<th>Formative</th>
<th>Summative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic/Baseline</td>
<td>Assignment 1</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Task 1</td>
<td>Assignment 2</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Assignment 3</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Assignment 4</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Task 2</td>
<td>Assignment 5</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assignment 6</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assignment 7</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Tests</td>
<td>Test 1</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test 2</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

* Forms part of diagnostic testing so technically is not considered summative but will be used with summative marks for comparison to see if literacy scores have progressed or not.

The median scores of Task 1 (Assignments 2, 3 and 4) show an improvement from 68%, to 71% and 80% respectively; whereas, the median scores of Task 2 (Assignments 5, 6 and 7) show a decrease from 72%, to 71% and 70% respectively. Further, Assignment 4 (80%) shows an improvement from Assignment 1 (74%), but Assignment 7 (70%) is lower than both Assignment 4 (80%) and assignment 1 (74%) (See Table 4.1 and Figure 4.2). Although the decrease in Task 2 is marginal (72%–71%–70%), the decrease between the final submission of Task 1 (Assignment 4 – 80%) and Task 2 (Assignment 7 – 70%) is relatively large. In other words, students’ literacy scores showed signs of improvement within the first half of the module but decreased within the second half. This is cause for concern because previous evaluations of the success of ‘RtL’ (See literature review) show literacy improvements overall (Rose, 2006). In other words, the descriptive data shows that the improvement of literacy scores is not in line with previous reported cases of success in implementing ‘RtL’. However, with the initial increase in literacy scores between Assignments 2, 3 and 4 (see Figure 4.3), this could be attributed to the intense process approach to writing which forms a strong component of ‘RtL’.

Figure 4.3 Increases in Literacy Scores between Assignments 2, 3 and 4 (Task 1)
As discussed already (See methodology 3.5), students are given focused feedback during the ‘preparing before writing’, ‘joint reconstruction’ and ‘individual reconstruction’ phases of the six stage cycle (See Appendices for six stage cycle of ‘RtL’) on draft copies before final submission. In other words, educators give detailed feedback to students on how to better assimilate the field and language/grammatical patterns of the model text into their own writing in order to produce academic texts relevant to the genre being modeled (Rose, 2008). Therefore, students make use of the detailed feedback to learn from, and improve their academic literacy skills. However, a similar level of intense feedback was given, within similar phases of scaffolding during the second half of the module for Task 2 (Assignments 5, 6 and 7); yet, students overall literacy scores decreased (See Figure 4.4 below).

**Figure 4.4: Decrease in Literacy Scores between Assignments 5, 6 and 7 (Task 2) and Summative Assessment Assignments 4 (Task1) and 7 (Task 2)**

There are a number of possible factors that could have influenced the drop in literacy scores from the first half of the module to the second. However, once again, due to word limitations this paper will only discuss the drop in literacy scores in terms of the following: firstly, a difference in academic complexity between the first and second half of the module together with a change in pedagogic practice; secondly, the type of text used to model language patterns (Halliday, 1993, 1996); and thirdly, students’ access to codes of knowledge (Bernstein, 1990, 1996) and insufficient time given to scaffolding academic texts in order for learners to develop academic autonomy (Vygotsky in Schaffer, 2004). The discussion which follows will discuss these changes in literacy scores.

Firstly, the second half of the module increased the level of academic complexity by introducing students to specific rhetoric devices used to create cohesion and coherence within academic texts. As discussed within the literature review (Halliday, 1993, 1996), a lack of information and attentiveness towards the function of rhetorical devices within academic texts often causes students to become isolated from meaning embedded within texts (Rose, 2006). For this reason, students were scaffolded through the use and meaning of grammatical and lexical cohesive devices as well as theme and rtheme...
patterning commonly found within academic texts. Consequently, students were then expected to make use of these devices in their extended writing assignments (Task 2 – Assignments 5, 6 and 7). Thus, not only was the complexity of the course material more advanced than the first half of the module, but the assignment requirements were more cognitively demanding as well. As a result, a slight decrease in literacy scores is expected. However, not only were the literacy scores more than ‘slightly’ lower than the first half of the module, they continued to decrease (Task 2 - 72%, 71%, 70%; summative 4-80%, summative 7 – 70%) even with detailed support and assistance from educators during the process of drafting and re-drafting. This could be further attributed to the pedagogic practice adopted for this particular aspect of the module. The teaching of grammatical and lexical cohesion, together with theme and rheme patterning, was taught in isolation to the course reading text. In other words, a more traditional pedagogic approach was used to teach these devices which deviated from the type of pedagogy that underpins ‘RtL’ (Hallidayan). Furthermore, the examples used to illustrate the meaning and functions of cohesive devices were decontextualized (not embedded within the text). Inauthentic language examples were produced to raise students’ awareness of cohesive devices. Students were then asked to demonstrate their understanding of these by incorporating them into their extended writing. This seems to have been cognitively too demanding for students at this stage. Once again, this deviates from Halliday’s principles which posit that access to the meaning of rhetorical devices within texts involves an understanding of the text on three different levels, requiring a contextualized and top-down pedagogy (See Figure 2.6). Students’ inability to internalize the meaning and function of decontextualized cohesive devices taught is further illustrated in the massive discrepancy between the final summative score of Assignment 7 and Test 2. See Figure 4.5.

**Figure 4.5: Discrepancy between Test 2 and Assignment 7**
Both Test 2 and Assignment 7 assessed students’ on their ability to understand and use cohesive devices in written texts. However, Test 2 made use of shortened, decontextualized, inauthentic language examples and asked students to analyze these according to various cohesive categories. Students found this task relatively easy but struggled to demonstrate their understanding of lexical and grammatical cohesion by transferring these to their own extended writing (Assignment 7). This is because the time given to scaffold these devices was relatively short; thereby, not allowing students sufficient time to internalize these and then reproduce them in their extended writing. Furthermore, because the cohesive devices were decontextualized, students found it difficult to replicate them within the required academic language patterns of academic texts. This is discussed further below. It is important to point out that although the discussion above is based on patterns found within the descriptive statistics, the Wilcoxon signed – rank test did not find a meaningful statistical difference between Test 2 and Assignment 7. This could be due to the fact that Test 2 had a different test format to Assignment 7. However the make-up of the sample is similar. The statistical insignificance could also be attributed to the fact that there were more positive than negative ranks. Though, it is more likely that it is due to the fact that there are fewer ‘bigger’ decreases (negatives) than the greater number of ‘smaller’ increases (positives). Nevertheless the ramification of the type of text used to model language patterns is important and is discussed below in more detail.

The type of text used as a model to scaffold academic writing in the second half of the module differed from that of the first half and could offer a cause for the decrease in literacy scores. See Table 4.4.

**Table 4.4: Text Input versus Text Output**

<table>
<thead>
<tr>
<th>Assignment/Task/Test</th>
<th>Text Type Modeled</th>
<th>Required Text for Assignment/Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Task 1 (Assignments 2, 3 and 4)</td>
<td>Argument – Exposition</td>
<td>Argument – Exposition</td>
</tr>
<tr>
<td>Task 2 (Assignments 5, 6 and 7)</td>
<td>Narrative</td>
<td>Argument – Discussion</td>
</tr>
<tr>
<td>Test 1</td>
<td>N/A</td>
<td>Argument – Exposition</td>
</tr>
<tr>
<td>Test</td>
<td>N/A</td>
<td>Analysis of inauthentic, decontextualized text.</td>
</tr>
</tbody>
</table>

Students’ literacy scores increased where an academic text was used to model appropriate academic writing conventions. In other words, an academic text was used to scaffold learners through Halliday’s (1993, 1996) stratified model of language. The text used encompassed specific genre patterns of language for texts found within the Humanities, which meant that learners were able to use the academic text as a model for reproducing similar language patterns and genre conventions.
appropriate to academic writing in Task 1 (Assignments 2, 3 and 4). Contrasting, the text used within the second half of the module was not an academic text and was sourced from a local ‘entertainment’ magazine similar to Glamour. The decision to use a text of this type was two-fold: firstly, it would appeal to students as it was a text that grappled with the complexity of having to live in both an urban and rural setting; and secondly, it was written in a less formal style similar to spoken language. In other words, the text made use of Bernstein’s restricted codes of knowledge; thereby, making it easier for students to decipher meaning as they already had access to restricted codes of consciousness (Bernstein, 1990, 1996). Although the intention was good – to provide a text that was cognitively less demanding for ESL learners, or learners categorized as ‘previously disadvantaged’, the data shows that by lowering the complexity of the input (type of text used to model academic language patterns and conventions), students’ output was consequently lowered. In other words, providing students with an academically impoverished text to read inadvertently disadvantaged them further (Cummins, 1991). However, it would be erroneous of me to state that the effect of cognitively less demanding texts is straightforward and will always lead to decreased literacy outputs. This is because the text type modeled in the second half of the module was not only ‘easier’, but it was also a narrative which is of a dissimilar genre to that required by the assignment task (academic argument). Therefore, perhaps further testing is needed to differentiate the causal effect of using texts with a dissimilar genre versus texts with differing levels of difficulty in literacy development.

The data also illustrates that at this stage within the module students struggled to transform the type of text used in the second half of the module (narrative) into an academic text. This is indicated by the skewedness of the data (See Figure 4.1 and Table 4.1). For example, Assignment 5, which is positively skewed (not so good), has a higher number/frequency of low scores compared to Test 2 (negatively skewed) which has a higher number of better scores. To recap briefly, Assignment 5, 6 and 7 (Task 2) required students to transform a narrative into an argumentative (expository) text while demonstrating the ability to use cohesive devices to create a cohesive and coherent argument; whereas, Test 2 simply required students to analyze a stretch of inauthentic, decontextualized language patterns in terms of the cohesive devices presented in the module. Although both Rose (2006, 2008) and Halliday (1993, 1996) argue that the teaching of reading and writing needs to be simplified in order to make it more accessible (See literature review, Halliday), it is an academic argument that needs to be simplified and not a narrative which was offered as the reading material for the second half of the module. A narrative text could be a valuable source of input for academic writing courses; however, because it is of a different genre to academic texts, it should perhaps only be introduced once learners have been given sufficient time to internalize language patterns found within academic texts. This leads us to the third factor that could have contributed to the decrease in literacy scores – access to codes of knowledge and insufficient time given to scaffold academic writing skills.
As discussed in the literature review, most of the students within the ACCS module emanate from rural, impoverished communities. Consequently, these students may have had ample access to restricted/spoken codes of knowledge, but limited access to elaborated/written codes of knowledge at school (Rose, 2006, 2004; Bernstein 1990, 1996). Due to the erroneous sequencing and pacing of the literacy development curriculum (See literature review), these students would not have been given adequate time and opportunities to develop the skills needed to access, and develop, elaborated/written codes of knowledge (Bernstein, 1990, 1996; Hart, 2009 and Rose, 2004, 2006, 2008). Therefore, the aim of ‘RtL’ is to scaffold learners in such a way so as to assist students in developing the necessary skills needed to independently learn from academic reading. The first half of the module (Task 1) scaffolded students through the complexities of academic texts (Vygotsky in Schaffer, 2004; Halliday, 1993, 1996). Students were then guided further through the process-based approach to writing. However, the data (decrease in second half of the module) highlights that one cycle of interaction may not be long enough for educators to mediate successfully access to written codes of knowledge. The fact that learners were unable to demonstrate their understanding of cohesive devices by successfully transforming a less formal, ‘spoken’ text (restricted code) into a more academic (elaborated code) text is evidence that students have not been given sufficient time to internalize elaborated codes of knowledge (written test) modeled in the first half of the module. This could indicate that students are still within the first two stages of the ZPD (See literature review) and need further intensive mediation in order to be able to access and produce academic texts (language patterns of certain academic genres) before they develop academic autonomy. This is an important finding as the implementation of ‘RtL’ in Australia usually lasts over two semesters and not one like the UKZN ACCS module. Perhaps the next stage of this action research could look at whether an extra semester of intensive scaffolding could produce better results in terms of raised literacy scores.

After considering the findings of the descriptive statistics above, the effectiveness of ‘RtL’ within the context of UKZN does not look promising. In other words, the way ‘RtL’ is currently being implemented at UKZN is not producing similar results compared to those previously reported in the literature review (See Figure 4.6). However, an analysis of the data using the Wilcoxon Signed-Rank test reveals that although the implementation of ‘RtL’ at UKZN was not successful in raising all learners’ literacy scores overall, or on average, within one semester, the individual scores of a few learners showed significant improvements which is exciting from a social justice/inclusive context as it does offer signs of democratizing the classroom as reported within the aims of ‘RtL’ in the literature review. See Figure 4.7.
Figure 4.6: Success Rate of ‘RtL’ at UKZN compared to Australia

<table>
<thead>
<tr>
<th></th>
<th>UKZN</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A1</td>
<td>68</td>
<td>75</td>
</tr>
<tr>
<td>A7</td>
<td>68</td>
<td>74</td>
</tr>
</tbody>
</table>

* This study is not focusing on a comparative study of ‘RtL’ within an SA and Australian context and will therefore not discuss the difference in the two figures above. Rather, the above figures offer a comparison only to illustrate the apparent ‘non’ effectiveness of ‘RtL’ at UKZN.

Figure 4.7: Increased Literacy Scores of Individual Students in Comparison to an Overall Decrease of Median Scores

Class Median Score (4 percentage point decrease overall)

- Student 1 (14 percentage point increase)
- Class Median Score (4 percentage point decrease)
- Student 2 (3 percentage point increase)
- Class Median Score (4 percentage point decrease)
According to the Wilcoxon signed – rank test, the difference in the matched pairs’ literacy scores of Task 1 (made up of Assignments 3 and 2; and 4 and 3 respectively), together with the difference between the matched pair - summative assignments 4 and 1, show a greater number of positive ranks than negative ranks (See Table 4.2). This indicates that the difference in literacy scores at an individual level, for the first part of the module, were positive - learners’ individual literacy scores were increasing. However, these increases were mostly accounted for within the discussion above about possible reasons for why literacy scores increased within the first half of the module. Conversely, the direction in the difference of summative Assignments 7 and 4; and 7 and 1, were negative -more negative ranks (30; 26) than positive ranks (7; 5). See Figure 4.8.

Figure 4.8: Graphic Representation of Increase and Decrease in Summative Assignment Marks
In other words, a larger number of students’ individual literacy scores decreased in the second half of the module\textsuperscript{xxxi}. The reason for this has already been discussed\textsuperscript{xxxi}. However, very importantly, what the Wilcoxon signed – rank test shows is that the mean positive rank (18.70) between Assignment 7 and Assignment 1 is greater than the mean negative rank (15.48) even though there are a greater number of negative ranks (26) than positive ranks (5). In other words, 26 of the matched pairs showed a negative difference (26 students did not increase their literacy score); whereas, 5 of the matched pairs showed a positive difference (5 students increased their literacy score). Furthermore, of the 5 students who increased their literacy scores between Assignments 1 and 7, their average increase is greater than the average decrease. This is an important finding because the long term goal of ‘RtL’ is to eradicate educational oppression by ensuring equal access to learning (Rose, 2008). This philosophy spans beyond merely providing access to quality education to all learners regardless of socio-economic status. It also encompasses learners categorized as intellectually weak; and subsequently, given little academic stimulation to break out of this category. In other words, ‘RtL’ aims to democratize the classroom. By this we mean that ‘RtL’ aims to make codes of knowledge accessible to ALL learners without having to provide differing levels of input to different groups of students within the classroom. Most learning theories advocate for the use of learning tasks that are appropriate to differing learners’ intellectual abilities. This is based on Piaget’s theory of cognitive development; hence, the incremental model of education (See literature review). Consequently, this approach ensures that the weaker cohort of students remains weaker, and that the gap between stronger and weaker students is maintained. However, this study’s data seems to suggest that the implementation of ‘RtL’ at UKZN has had a diminishing returns effect. In other words, the weaker students have made the greatest gains. Moreover, the greater the level of input, the greater the level of academic gain in academic literacy development. This is an important finding; because, despite the possible flaws in the current implementation of ‘RtL’ at UKZN, the weakest cohort of students have benefitted the most from this literacy intervention strategy. For example, Figure 4.9 below illustrates that the weakest cohort of students, who started off within the lowest 25\textsuperscript{th} percentile, had gains of over 10 percentage points, enabling them to finish within the top 50\textsuperscript{th} percentile. In addition, the weakest two students finished within the 50\textsuperscript{th} and 75\textsuperscript{th} percentile respectively. Data from the Wilcoxon signed – rank test has provided sufficient evidence to prove that the weaker the student is from the onset, the greater the returns in literacy development with the implementation of ‘RtL’\textsuperscript{xxxi}. In other words, the implementation of ‘RtL’ within the ACCS module at UKZN is truly a pedagogic approach capable of democratizing the classroom. Furthermore, the data reveals that, if given access to quality pedagogic discourse, learners previously labeled as academically inept due to ‘innate biological’ and cultural factors, can succeed (See Literature review – Bernstein).
Figure 4.9: Comparison of Weakest Students’ and Strongest Students’ Literacy Scores Between Assignment 1 and Assignment 7

* Assignment 1: 34 percentage point gap between weakest (58) and strongest student (92) at onset of module.
* Assignment 7: 11 percentage point gap between the same pair of weakest (70) and strongest (77) students after one semester.

4.5 Conclusion

The discussion of the findings of the data analysis was informed by the literature review. The descriptive data showed a general increase in literature scores between Assignments 2, 3 and 4 (Task1); but, a marginal decrease in literature scores between Assignments 5, 6 and 7 (Task 2). Further, the descriptive statistics showed an increase in scores between summative Assignments 1 and 4, yet a massive decrease between summative Assignments 4 and 7. The increase in literature scores in the first half of the module was attributed to the intense process approach used. However, this approach was carried through the second half of the module. Therefore, the decrease in literature scores in the second half of the module was attributed to the following: a difference in academic complexity of reading material and task requirements between the first and second half of the module; a change in pedagogic practice in the second half of the module that deviated from ‘RtL’ s practice; a difference in the type of text used to model patterns of academic language between the first half of the module and the second; which subsequently led to a decrease in access to elaborated codes of knowledge; and finally, insufficient time. Although the findings of the descriptive data revealed grim results for the current practice of ‘RtL’ at UKZN, the Wilcoxon signed-rank test revealed that the strategy did indeed democratize the classroom as learners who started within the weaker cohort of students made the most amount of gains; and subsequently, finished within the top standard. In other words, the use of ‘RtL’ did close the gap between poorer and stronger readers. For this reason, ‘RtL’ is an effective intervention strategy for UKZN- with certain changes, should be continued at UKZN.
CHAPTER FIVE
CONCLUSION AND RECOMMENDATIONS

Literacy achievements of learners in SA, due to the erroneous sequencing and pacing of the literacy development curriculum are alarmingly low, giving rise to learners ill equipped to cope with the rigorous demands of tertiary studies. Consequently, a large majority of learners, already disadvantaged by the schooling system, face being further disadvantaged at tertiary institutions. This state of affairs prompted my interest in researching alternative pedagogic practices that had as its central aim, the ability to redistribute categories of consciousness normally associated with middle class occupations, to those marginalized by the current pedagogic discourse of the schooling system.

The ‘RtL’ literacy intervention strategy, developed by Dr. David Rose, was developed to eradicate educational oppression within an Australian context. It was recently used within a Swedish context and reported to have similar success rates – speedily advancing literacy achievements whilst simultaneously closing the gap between better performing students and weaker performing students; thereby, democratizing the classroom. However, the educational context in SA is unstable due to numerous resource factors; therefore, raising serious concerns about the efficacy and applicability of such an intervention strategy at UKZN, SA. These concerns shaped the research questions for this study:

1. Is the ‘RtL’ strategy an effective pedagogic approach for the English Academic Writing course at UKZN?

2. What happens to students’ academic literacy scores after one semester when the ‘RtL’ strategy is integrated into an English Academic Writing course at the UKZN?

After an analysis of the data with both descriptive (central tendency and dispersion of the data) and analytical statistics (Wilcoxon Signed-rank test), the efficacy of ‘RtL’ at UKZN, for an English Academic Writing module, is considered confirmatory (RQ1). In other words, the data does confirm, to some extent, that the implementation of ‘RtL’ does lead to improved literacy scores in general and should be continued (RQ2). This is because the general literacy scores showed signs of improvement within the first half of the module. Furthermore, an even stronger motivation for the continuation of this strategy at UKZN is illustrated through the analysis of students’ comparisons of literacy scores across different assignments (Wilcoxon data). Although a general decrease was evident in the second half of the module, with the number of negative ranks (number of students who decreased) being greater than the number of positive ranks (number of students who increased), the mean positive rank (average increase of the few students who did increase) was far greater than the mean negative rank (average decrease of student’s scores). This demonstrates the efficacy of ‘RtL’ in eradicating
educational oppression by ensuring the gap between better performing students and weaker performing students is narrowed. This is because the weakest students within the ACCS module showed the greatest gains in terms of increasing their literacy scores. However, the efficacy and implementation of ‘RtL’ at UKZN was not without fault. The fact that literacy scores decreased in general in the second half of the module illustrate certain errors that will need to be rectified for future implementation. The most glaring of these relate to the actual practice of ‘RtL; type of text used to model academic patterns of language and the time needed to mediate/scaffold literacy skills.

For future implementation of ‘RtL’ at UKZN, it is recommended that the teaching of cohesion and coherence (academic skills taught in the second half of the module) take place implicitly, and within the context of academic reading materials. The current practice was direct, explicit instruction of these devices in a decontextualized manner with the use of shortened, inauthentic language examples. The transfer of these skills to students’ extended writing proved too difficult. This is directly linked to the type of text used as a model to scaffold academic language patterns. Secondly, the second half of the module made use of a narrative, which did not provide students with sufficient guidance on how to replicate patterns of language for academic arguments. Therefore, it is recommended that the text used within the second half of the module should be a text from an academic argumentative genre. Thirdly, the implementation of ‘RtL’ in Australia was over two semesters (year long – 32credits). However, the ACCS module at UKZN, which is only a 16 credit bearing course, is only offered for one semester. It is recommended that the implementation of ‘RtL’ be extended to two semesters (32 credits and not 16 credits) in an effort to provide students with more time to internalize the language patterns scaffolded within the course. However, it is noted that this recommendation in itself seems easy to suggest, yet extremely difficult to effect change in a big institution such as UKZN. This is because any curriculum change needs to be accepted by the Curriculum Development Board. Perhaps the Faculty of Humanities could make a decision to offer the course over one year and still maintain its 16 credit weighting.

This project is not without its weaknesses. The data that was immediately available was used for analysis (my groups). Even though the sample was randomly selected, because the number of participants within the ACCS module is not excessively large, perhaps the entire population could form the sample for future studies. At the same time, the reliability of the data in representing literacy gains for the weakest cohort of students could have been enhanced if student writing samples were included in this study. However, once again, it is easy to suggest the inclusion of students’ writing samples, but because the samples would have come from the weakest students, these students’ levels of confidence in their own writing may have hindered this. Finally, the scores allocated to baseline testing, Assignment 1, was less strict than the standard used for the rest of the module. This was to ensure students were motivated to work hard in this module. However, this becomes problematic.
because the baseline scores are slightly overinflated. Therefore, one needs to weigh up the costs of motivating students and inflating their scores slightly, or being true to research and providing more accurate accounts of students’ baseline literacy scores.
Bibliography


CHAPTER ONE - INTRODUCTION

1.1 Political Background to the Current Educational State of Affairs in SA

The establishment of the ruling National Party’s educational goals and objectives, which included separate schooling standards for White and Non-White students (African, Coloured and Indian), was a direct result of Non-White students possessing the requisite skills needed to compete for essential jobs within the economy of SA during the late 1940’s. In an effort to secure these jobs for White Afrikaans children, the government commissioned a study to find ways of ensuring Non-White students were excluded from competing for these jobs. Consequently, the Bantu Education Act (BE Act) of 1953 was established. Various competing viewpoints have been established to provide a rationale for such an oppressive educational policy. For example, Christie and Collins (1984) argue that the BE Act merely offered a restructuring of the conditions needed for stabilizing the black urban underclass of semi-skilled laborers. According to Lazar (1987), White Afrikaans businessmen supported a utilitarian and rational approach by ensuring the BE Act created an environment of racial segregation and social engineering\(^1\) in an effort to secure the job market for their children (Lazar, 1987; Booner, Delius & Posel, 1993). From a Marxist viewpoint, Chisholm and Cross (1990) argue that the Act was merely a direct response to the labour crisis at the time, brought about by secondary industrialization in SA and an increase in monopolization of capitalist production by white South Africans, aided and abetted by legislation of the ruling National Party government. Hyslop (1990); however, describes the BE Act as a means of preventing juvenile delinquency and political militancy. In hindsight, and as a criticism of Hyslop’s viewpoint, the BE Act did not prevent juvenile delinquency and political militancy, it merely suppressed it until the proverbial ‘genie was let out of the bottle’ by the June 1976 Soweto uprising.

The Soweto uprising of 1976\(^2\) was the culmination of almost 13 years of discontent towards the use of Afrikaans, alongside the mother tongue of Non-White learners, as the medium-of-instruction (MOI). Although theoretically sound in terms of bilingual models of education (Moll, 1994), African parents

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\(^1\) Non-White learners would have access to subjects at school that would prepare them for their role as the subservient labour force. For example, girls were required to take up housekeeping subjects while boys took up gardening subjects.

\(^2\) This was one of the main reasons for the uprising but certainly not the only reason. Learners from rural schools led a nation-wide strike which culminated in the burning of schools and libraries in Soweto. The police force was called in to implement crowd control. The conflict got out of hand and hundreds of school children, and police members were either injured or killed. This is a highly contentious issue in SA as accounts of what actually happened, differ greatly.
saw this move as a means of excluding their children from accessing the economy\(^3\). With international global pressure mounting, the abandonment of the BE Act was inevitable. The first democratic elections in 1994 saw a new ruling party come into power who them radically overhauled the educational system. However, some 17 years after democracy; this radical, progressive system has led to a massive decline in educational achievements in SA (Hugo, 2009). More specifically, it has led to a drop in literacy rates - which refers to a learner’s ability to read and write to access education (See literature review). This is in part, due to the new Language-in-Education Policy which affords individuals the right to choose which language to use as their MOI. Consequently, due to the dominance of English in global interactions, a large majority of Africans choose English (Letseka & Maile, 2008). However, most schools which serve the African community (Africans, Coloured and Indian) are not equipped with the resources\(^4\) to offer English as the MOI. For example, for most teachers teaching in English, English is their third or fourth language (Letseka & Maile, 2008). This is further exacerbated by poor development of basic interpersonal skills (BICS) in learners’ mother-tongue; which, together with poor sequencing and pacing of the literacy development curriculum, results in poor quality schooling.

\(^3\) In other words, Non-White children were being denied the opportunity to access English instruction. Consequently, they would not be able to develop sufficient proficiency in English to access government related jobs. This was because the language of business, and global lingua franca was, and still is, English.

\(^4\) By resources, I am referring to the availability of time and human resources. A more detailed discussion of resources is made available in the literature review: sequencing and pacing of the literacy development curriculum.
CHAPTER TWO – LITERATURE REVIEW

2.1 Bernstein’s Codes of Consciousness – Socio-Linguistic Theory

Restricted codes refer to abstract, implicit and specific knowledge and are generally suited to situations where there is a shared set of assumptions and understanding; whilst, elaborate codes do not presuppose that either interlocutor, or listener, share a common understanding. Therefore, the elaborated code is generally understood as more explicit in nature than the restricted code and does not necessitate a ‘reading between the lines’ (Littlejohn, 2002). The biggest distinguishing factor between these two codes, for educational purposes, is their use. According to Littlejohn (2002), restricted codes are better suited for situations where there is sufficient shared, ‘taken-for-granted’ knowledge. As a result, restricted codes are rich, yet economical as they convey considerable meaning within shared connotations (non-linguistic cues). This code of consciousness is typically found amongst friends and closely knit social groupings in more relaxed environments; and therefore, allows for more informal use of language and interjections. For example: “you know what I mean”; “you know” and “don’t you think”. The elaborated code; however, makes explicit the message being articulated to ensure all involved in the communicative process understand the message – has more complex sentence structures (can be highly nominalized) and no fillers to aid comprehension. It is also elaborated as the circumstances in which the participants find themselves located do not allow for the interlocutor to condense the speech act (Atherton, 2002). Furthermore, the elaborated code is best suited when no prior shared knowledge or understanding is assumed, resulting in more thorough explanations. Neither code is inferior to the other as both encompass their own qualities (Bernstein, 1975). Rather, it is society that places dissimilar patterns of worth on these codes. Consequently, access to only restricted codes can be disadvantageous if the literacy development curriculum does not provide ample opportunities for the acquisition and development of elaborated codes.

2.2 The ‘RtL’ Classroom Cycle (the discussion below is adapted from Hart, 2009; Acevedo, 2010)

The fundamental principle of ‘RtL’ is that all curriculum content to be learned is separated from the skills that students need to acquire in order to learn the curriculum content. These skills can be divided into two interrelated spheres. The first is the skill needed to independently learn from reading and the second set of skills are the actual classroom skills needed to assist students in becoming independent learners. The ‘RtL’ pedagogy therefore, is designed to integrate the teaching of all school curriculum content with the explicit teaching of the skills needed to learn from reading and interacting with peers, teachers and the curriculum content (Acevedo, 2011). This is achieved by scaffolding students reading and writing on three different levels. See Figure 2.1 below.
The first of the three (outer) layers - preparing before reading; joint construction; and independent writing, prepare learners for lesson reading sessions and the comprehension of chosen reading texts. These texts then become models for guiding and supporting individual rewriting activities. The second level of the cycle – detailed reading, joint and individual rewriting, is used to extend learners’ understanding of the chosen written text, and to support students in using the information within the text, together with the texts language patterns in the development of their own writing. The detailed scaffolding strategies used within this level of the cycle support even the weakest of students in accessing, and reproducing challenging, abstract texts. The third and most inner layer of the cycle – sentence making, spelling and sentence writing, provides learners with intense scaffolding to enable students to manipulate language patterns found within individual sentences as well as to practice the construction/spelling of foreign words. Although the three different levels follow a separate six stage teaching cycle (See Figure 2.2 below), it illustrates the top-down nature of ‘RtL’ - students are supported from the top (over all meaning of text) and work down towards the individual sentence or word level.
Preparing before reading: educators prepare students for the reading of the text by offering a recount (paraphrase) of what the text is about and the sequences that will be encountered within the text. In other words, learners’ attention is draw to the different stages of the genre that the text is located in. For example, if the text is a narrative, the teacher, while paraphrasing the story, will highlight when the story moves from the orientation to the final aspect- coda. This is obviously done without explicitly burdening students with the meta-language just yet. This is to ensure learners, when reading the text, know what the text is about and can spend their time focusing on the text, and not on deciphering what the text is about. Consequently, the load is lightened for weaker readers. This section of the cycle allows students access to the context (genre, field, tenor and mode), and level of the text, or discourse semantics. See Halliday for a more detailed discussion.

Detailed reading: The detailed reading stage is the most important stage of ‘RtL’ and follows a further 3 stages: preparing; identifying and elaborating.

During the preparation stage, learners are given access to detailed meanings of each sentence (or paragraph for tertiary level students) to ensure students have sufficient support to recognize the meaning of each word. This is done by; firstly, paraphrasing the sentence in a commonsense way to ensure learners will be able to understand. Sufficient links are made to the next sentence to ensure students start recognizing and understanding the use of rhetorical devices. The teacher then provides positional cues and asks learners to find the words that relate to the cues.

For example:

Sarah slowly walked towards to door and quietly tip-toed across the room

Teacher: Which word in the beginning of the sentence tells us who the story is about?
Learners: Sarah

Teacher: Which word in the middle of the sentence tells us how she tip-toed across the room?
Learners: quietly

Once learners correctly identify words related to the positional cue and their answers affirmed, they are asked to highlight the word (identifying stage) and write down the technical terms used for that word/phrase/clause (noun, noun phrase). In other words, the teacher then elaborates further on the use of the word/phrase which forms the elaboration phase. This three stage cycle within the detailed reading stage resonates strongly with Vygotsky’s notions of scaffolding. The teacher prepares the learner by asking questions about the text, with different degrees of difficulty as per the students ZPD, and slowly guides the learners thinking by providing the language needed to access the text. This follows a carefully designed interaction cycle commonly referred to as the IRF cycle (Figure 2.3 below) – initiate (prepare and offer positional cues); response (respond by affirming the student’s response) and offer feedback (elaborating).
Preparing for writing stage: Students make use of words/phrases highlighted during the detailed reading stage as a basis for their preparation of joint rewriting activities. It is during this stage that educators are able to focus further on issues relating to graphology. Students are asked to brainstorm new ideas (synonyms) that can be used to replace words/phrases used in the current text for their joint rewrite activity. It is important to note that students are being scaffolded through the process of paraphrasing which is a crucial tool for writing at tertiary level.

Joint reconstruction: The IRF cycle is used again to prepare students in the development of new texts. Students are asked to share their ideas for the new text whilst the teacher affirms and elaborates on the applicability of students chosen words/phrases. The teacher uses this stage to highlight; once again, the specific use of rhetorical devices in creating cohesive texts. Students may be asked, depending on the availability of resources, to write up their ideas on the chalk/white board which provides another situation for scaffolding learners writing – negotiated deconstruction and reconstruction of written text. This is because the teacher may elaborate further on issues relating to graphology (spelling) and lexico-grammar (syntactic and semantic characteristics) of words/phrases chosen by students. Educators may also ask students to think about the original construction of the field and to check whether this has been altered by the use of new words/phrases.

Individual reconstruction and Independent writing: By carefully negotiating the development of new texts, teachers are preparing students to become autonomous individuals whilst providing them with the requisite skills to construct their own written texts. A process-based approach to academic writing is employed as students are asked to individually write their own version of the text studied. This is assessed and ample feedback given to support learners. Learners are then required to use the feedback given to independently construct their own text.
3.1 Marking Criteria for Codifying Qualitative Writing into Quantitative Data Scores

**Assessment criteria**

Here are some brief definitions for each criterion, and some questions you can ask when looking at a text. You can make quick judgements about most criteria, but the five discourse criteria are most important, and should be carefully identified and marked in the text. This will show the exact language resources the student is using. The criteria are explained in detail on page 36-38 below.

**NOTE:** Genre, field, tenor and mode are expressed by patterns of language in a text. **Field** by lexis and conjunction; **tenor** by appraisal; **mode** by reference and grammar.

### CONTEXT

**Purpose**
How appropriate and well-developed is the genre for the writing purpose? 0-8

**Staging**
Does it go through appropriate stages, and how well is each stage developed? Label each stage in the text. 0-3

**Phases**
A well-organised text goes through a logical sequence of steps. Phases are the steps that a text goes through (within each stage). Each phase may be a paragraph or a few sentences long. Identify and mark the phases in the text. 0-3

**Field**
How well does the writer understand and explain the field in **factual texts**, construct the plot, settings and characters in **stories**, or describe the issues in **arguments**? 0-3

**Tenor**
How well does the writer engage the reader in **stories**, persuade in **arguments**, or objectively inform in **factual texts**? 0-3

**Mode**
How highly written is the language for the school stage? Is it too spoken? 0-3

### DISCOURSE

**Lexis**
Lexis is the word choices that writers use to build the field of a text. They are the content words, and the relations between these lexical words from content to sentence. Mark the lexical words the writer uses. What are the writer's lexical resources? How well is lexis used to construct the field? 0-3

**Appraisal**
Appraisal is the word choices that writers use to evaluate. They include feelings, judgements of people, appreciations of things, and words that amplify and diminish. Mark the appraisal words the writer uses. What are the writer's appraisal resources? How well is appraisal used to engage, persuade, evaluate? 0-3

**Conjunction**
Conjunction is the logical relations between sentences, and within sentences. Mark the conjunctions the writer uses. Logical relations may also be implicit. Is there a clear logical relation between all sentences? 0-3

**Reference**
Reference is the words that are used to keep track of people and things through a text, including pronouns, articles, demonstratives (this, that), comparatives (each, all, same, other). Mark all the reference words. Is it clear who or what is referred to in each sentence? 0-3

### GRAMMAR

You should make quick judgements about grammar and graphic criteria.

Are the grammatical conventions of written English used accurately? Is there an appropriate variety of sentence and word group structures for the school stage, or is it too simple? 0-8

### GRAPHIC FEATURES

**Spelling**
How accurately spot are core words (frequent) and non-core words (less frequent)? 0-9

**Punctuation**
How appropriately and accurately is punctuation used? 0-8

**Presentation**
Are paragraphs used? How legible is the writing? Is the layout clear? Are illustrations/diagrams used appropriately? 0-8
3.2 Process-based Approach with Assignments 2, 3, 4 (Task 1), and Assignments 5, 6 and 7 (Task 2)

In line with Vygotsky’s notion of scaffolding, (See literature review) the process-based approach to writing aims to provide maximum support to students during crucial stages within the writing process (Vygotsky, 1978). According to Hedge (2009), this approach to writing is highly beneficial to students who have not received adequate writing support in their L1; and therefore, will benefit from high levels of support in an English Academic Writing classroom. This is because the assistance given helps students achieve greater control of cognitive strategies employed during the writing process. The actual stages used within this approach vary from classroom to classroom and are dependent upon the availability of resources such as time and tutors available for feedback. The process-based approach is also conducive to pair-wise testing which will be discussed in the data analysis section (See Table 3.2). A criticism of this approach though is related to time. The Affective Writing for the Social Sciences (ACCS) curriculum requires set content to be covered in a very short time frame. If not managed correctly, students’ developing writing skills could regress.

Assignment 1 formed part of the diagnostic/baseline testing phase which was used as a means to judge students ‘incoming’ literacy skills, and to identify problem areas that would need addressing. Assignments 2, 3 and 4 were related to similar assignment questions and formed Task 1. Assignment 2 asked students to comprise a short written paragraph in response to the text being studied at the time. Assignments 3 and 4 asked students to build upon assignment 2 by adding additional paragraphs. For example, assignment 2 asked students to compose the introduction phase of an academic argument. Assignment 3 asked students to compose their body of their argument while attending to errors pointed out in assignment 2. Assignment four asked students to compose their conclusion while attending to errors pointed out in assignment 2 and 3. Assignments 5, 6 and 7 followed a similar pattern and formed Task 2. However, a different text was used as a basis for the assignments and the conceptual difficulty of the course material increased. This is because students were asked to pay attention to lexical and grammatical cohesive devices as well as theme and rheme patterning.

3.3 The Wilcoxon Signed-Rank Test

The Wilcoxon signed-rank test looks at the difference between scores in the two conditions being compared (individual students). Once the difference in scores is calculated, they are ranked according to whether the scores increase or decrease. In other words, the difference in assignment scores of each individual student is calculated. If there is no difference, (the student gets the same score for Assignment 2 and 3), then that specific data is excluded from the rank. (All zero differences are added
to the ‘tie’ category – see Table 4.2). If there was a difference between the two assignments, a note is made of whether the difference was a positive (increase) or negative (decrease) difference and these are then ranked according to size (from smallest to biggest). The number of positive and negative ranks are calculated to make up the mean positive and negative ranks, as well as the mean rank and sum of ranks.
CHAPTER FOUR – FINDINGS AND DISCUSSIONS

4.1 Discussion of Descriptive Data Markers Included in Descriptive Data Table 4.1

Table 4.1 above offers a descriptive presentation of the data set: measures of central tendency – mean and median; measures of dispersion/variability – standard deviation and interquartile range; and measures of shape - skewness and kurtosis (Field, 2009). It is important to note that the sample size of each assignment differs because only valid scores were included in the analysis. A valid score is simply a numerical score above 0 assigned to an assignment. No students were awarded a mark of 0 for their assignments in this module unless they failed to hand in an assignment. Because this study seeks to find out what happens to students’ writing scores during the implementation of ‘RtL’ (research question 2), and to evaluate whether ‘RtL’ is applicable to UKZN (research question 1), students who did not hand in assignments for a variety of reasons were excluded from the data set as this would not offer an objective indication of improved literacy skills or not as a result of the implementation of ‘RtL’. However, an analysis of increased occurrences of 0 scores would be useful for the next cycle of this action research as it may indicate decreased levels of motivation and interest in this pedagogic strategy.

In presenting central tendency and dispersion of the data observations, Table 4.1 provides the mean and median scores, as well as the standard deviation and interquartile range. A rule of thumb is that if the mean and median scores are similar, then the data can be considered normally distributed, resulting in the mean score being sufficient in describing what the data looks like (Field, 2009; Cohen, et al, 2010). Conversely, if these two are not similar, the data set is considered to be not normally distributed (See skewness and kurtosis below for further evidence of distribution). The bars in Figure 4.1 above represent the actual observed data and the bell curve represents the normal distribution where expected data points would lie if the data was normally distributed. Clearly, from the descriptive table (Table 4.1) and the graphs of individual assignments and tests represented in Figure 4.1 above, the data is largely not normally distributed. For example, Assignment 2 and Test 1 have a similar mean and median; therefore, are normally distributed. However, Assignment 4 and Test 2 are not similar; therefore, are not normally distributed. Furthermore, because Assignment 5 is positively/right skewed (most of the data lies to the left of the bar chart indicating too many low scores); Test 2 negatively/left skewed (most of the data lies to the right of the bar chart indicating a clustering of higher marks); Test 1 leptokurtic (positive kurtosis - very ‘peaked’); and Assignment 7 platykurtic (negative kurtosis - more ‘flat’), the data is considered to be largely not normally distributed.

Using 0 scores could be problematic for this study as it could be a direct result of either internal (motivational) or external (transport) factors. Students at UKZN have to rely on public transport to get to University. Because there is a stigma attached to the use of public transport, some students choose to keep quiet about their absence instead of asking for an extension to enable them to hand in late assignments.
distributed, resulting in the median score offering a better description of central tendency and the interquartile range offering a better description of dispersion. This has important ramifications for whether parametric or non-parametric tests are to be used in analyzing the data (Field, 2009; Rowntree, 2000).

Table 4.1 also shows the data’s skewness and kurtosis which further assists in the description of the data as either normally or not normally distributed. For example, in normally distributed data sets the value for skewness should be 0 and kurtosis 3 (Gujerati & Porter, 2009). The skewness of the data could shed light on why the frequency of scores deviate from the centre and are located toward the higher or lower mark level. For example, Test 2 is negatively skewed as opposed to Assignment 5 which is positively skewed and an investigation into why this has happened could be important. Similarly, the kurtosis of the data is equally important as it may shed light on why there is, or is not a high frequency of one particular grade/mark. Table 4.1 also breaks down the data set into percentiles. This is important as it enables the analysis, at a deeper level (Wilcoxon signed - rank test), to highlight which cohort of students (in which percentile) made the highest gains in literacy scores; thus, offering important evidence to back-up claims in the literature review that ‘RtL’ provides the greatest level of support to the weakest cohort of students (to be discussed in analysis of data).

4.2 Discussion of Data Markers Included in Wilcoxon Signed - Rank Test - Table 4.2

Table 4.2 above presents the findings of the analytical statistics – Wilcoxon signed – rank test. It was decided to include the following data markers for the following reasons:

Z value – This shows a standardized score to ensure that the data fits under a standardized normal distribution, with a mean of 0 and standard deviation of 1. The Z scores also allow us to check the critical values against the rejection region of a table of standardized normal values in the back of statistical books.

P value – This is an important value as it tells us whether the difference in scores from one assignment to the next (matched pairs), for each individual student, is statistically different or not. If the value of this score is \(< 0.05\) then it is highly probable that the difference in scores is not due to chance and allows the study to accept the hypothesis that the difference between the matched pairs (scores) is statistically different (Ha: There is a difference between the matched pairs). Conversely, if the P value is \(> 0.05\) then it indicates that there is a greater chance that the difference in scores is not a meaningful

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6 Once again, this has implications for whether parametric or non parametric data analysis models are used.

7 See appendix * for a more detailed discussion of the Wilcoxon signed – rank test.
statistical difference and could be due to a random occurrence. This then allows the study to accept 
the null hypothesis that there is no difference between the matched pairs (scores) (Ho: There is no 
difference between the matched pairs). For example, the difference in scores between Assignment 4 
and 1; Assignment 4 and 3; and Assignment 7 and 4 have a P value of 0.000 and shows that the 
difference between these scores is highly significant. In other words, there is < 1% chance that the 
difference is due to a random occurrence. On the contrary, the difference between Assignment 6 and 
5; Assignment 7 and 6; and Test 2 and Assignment 7 have a P value of 0.747, 0.463 and 0.176 
respectively. This shows that the difference in these matched pairs is not statistically different.

Number of negative and positive ranks: These offer insights into how the differences in matched 
pairs (scores) differ. (See Table 3.2 for matched pairs) The greater the number of ranks in either the 
positive or negative category indicates the direction of the results. For example, the difference in 
Assignments 3 and 2; 4 and 3; 7 and 6; 4 and 1 and Test 2 and 7 all show a greater number of positive 
ranks than negative ranks. This indicates that the difference in literacy scores were positive (scores 
were going up). Conversely, the direction in the difference of scores between Assignment 6 and 5; 7 
and 4 and 7 and 1 were negative (more negative ranks than positive ranks) showing that there were no 
increases in scores, rather decreases.

Mean Negative and Mean Positive Ranks: These have been included for one reason only: to test 
whether the mean positive rank is higher even when the direction of the results show an overall 
decrease, or vice versa. For example, the mean positive rank of Assignment 7 and 1 is greater than the 
mean negative rank even though there are a greater number of negative ranks than positive ranks. In 
other words, 26 of the matched pairs showed a negative difference (26 students did not increase their 
literacy score between Assignment 1 and 7); whereas, 5 of the matched pairs showed a positive 
difference (5 students increased their literacy score between Assignment 1 and 7). One would 
therefore assume that the overall result between Assignment 1 and 7 is poor. However, the 5 positive 
ranks have a greater mean than the 26 negative ranks showing that the 5 students who increased their 
literacy scores between Assignment 7 and 1 made massive increases that outweighed the decreases. 
This is a very important finding and is discussed further below.

Ties: These merely indicate the number of times the difference in matched pairs (scores) does not 
increase or decrease. In other words, the mark stays the same. For example, 3 students did not show 
any difference in their literacy scores between Assignment 3 and 2 – they got the same mark for both 
assignments.

N (sample size): As discussed in 4.1.1 above, this shows the number of valid scores that were 
included in the comparison.
End Notes

i A brief political overview of education in SA is included in the appendices (Chapter One) in an effort to familiarize the reader with the changing political dominance and the subsequent change in educational policy. This is in no way a full account of curriculum reformation which is not the goal/purpose of this paper.

ii Additive bilingualism – the acquisition of an additional language alongside the home language – vital for academic proficiency.

iii By disadvantaged, I am referring to deep rural schools which serve impoverished communities. As a result, these schools are categorized as ‘no fee’ schools. Therefore, the school relies solely on government funding. According to personal communication with Principals of such schools during a PGCE class trip in 2009, I was told that government funding does not cover the full costs needed to resource these schools sufficiently.

iv The aim of this research paper is not to identify and discuss theoretical assumptions of how English L2 learners acquire academic literacy skills in an additional language. Rather, this paper is focusing on pedagogical approaches to the teaching of literacy skills and the evaluation of one pedagogical approach in particular.

v Halliday’s framework which includes a study of Field, Tenor and Mode is one example.

vi To recap, NCS = National Curriculum Statement for SA schools.

vii It was developed out of a need to confront critical language barriers experienced by indigenous learners of Australia. Thus, the chief objective for Rose’s research was to develop an alternative pedagogic approach to the teaching of literacy skills in an effort to equip marginalized learners with core literacy skills needed to learn from reading and access higher learning (Rose, 2004).

viii An independent study of Aboriginal literacy development in Australia showed that the average reading and writing scores of Aboriginal children, after one year of ‘RtL’ instruction, was raised by 2.5 levels. This is equivalent to a growth of four years in reading and writing levels.

ix Field – what is happening within the text  
Tenor – who is taking part and what social relations are portrayed  
Mode - the symbolic organization of the text

x An inability to understand simple conjunctives was evident in my teaching experience at UKZN. Students did not understand how certain conjunctives signposted to the reader that opposing viewpoints to a thesis were being presented. Consequently, when asked to paraphrase all the positive attributes of living in rural contexts, students gave both the positive and negative attributes. This is because conjunctives such as however, on the contrary were simply misunderstood.

xi Have no pre-school orientations to reading.

xii In an effort to overcome the problem of large class sizes and a lack of competent peers for peer facilitation, the module I taught on recruited five trained ‘RtL’ ‘tutors’ to assist a group of approximately fifteen students each. This gave the tutor more time to engage in face-face interaction to ensure the mediated process had every chance of succeeding.

xiii Teachers assume learners are already independent readers; and therefore, do not overtly teach those who are not independent readers in how to become independent readers. This is by no means the only factor creating unequal schooling outcomes. Patterns of classroom interaction within schools produce and preserve unequal learner identities on the basis of conflicting experiences in learning from reading. However, this could be a separate dissertation in its own right. Classroom interaction is also referred to as the IRF cycle.

xiv This forms part of Bernstein’s Socio-Linguistic Theory.

xv The communities may not possess a fully codified language system. Rather, they rely on oral traditions, such as folklore, proverbs or folksong to re-tell important historical stories. For example, African griots were considered to be of social status within African societies and were responsible for the maintenance of African history. This was done through praise songs, poems and proverbs.
This can be explained in terms of Bourdieu’s Cultural Capital – this is the forms of knowledge, skills, education and advantages that a child is able to possess enabling easier transitions into the secondary Discourse of the school. This is normally communicated to children via parents to enable their children to succeed. This is also referred to as Linguistic Capital.

Learners from literate (elaborated/written codes) middle class families.

These include, to name a few, under-qualified teachers, lack of classrooms, shortage of textbooks, children who come to school cold and hungry.

I also found it hard at times to be as objective as possible for borderline cases when I knew the student had tried really hard. The subjective nature of my marking and those of other tutors was evident when neutral moderators were used to check the courses marking standards. It was found that when we knew who the student was, we were more inclined to give the student the benefit of the doubt by assigning a mark in a slightly higher category within the rubric.

Testing Threat to Internal Validity – This type of threat tries to ascertain whether the act of a pre-test will affect learners’ results on a post-test if the exact same test is to be administered. This is also commonly referred to as the ‘learned effect’.

A ‘mortality threat’ to Internal Validity – This refers to a high number of drop outs of students who would ordinarily score within the lowest percentile meaning that an absence of these lower scores results in an over inflation of the mean or median scores.

Inadequate Pre-Operational Explication of Constructs – This simply refers to the study’s ability to define the concepts being measured before actually measuring them.

I tried to find some articles that would prove my hypothesis inaccurate but I could not. Furthermore, my academic results stayed the same when I got married and my last name change from Bunn to Millin.

Formative assessment constitutes assignments that add to the learner’s learning experience and is not normally included in the overall grading of the course or module. For the purposes of the ACCS module, however, formative assignments were used as part of the course grade while simultaneously providing students with valuable feedback that could enhance the development of their literacy skills. Formative assessment usually occurs within the course. Contrastingly, summative assessment occurs at the end of the learning program, or individual stages of each learning phase within a course. Summative assessment is generally used as the final grade.

Once again, because the data is mostly not normally distributed, I am referring to the median. However, Figure 4.2 illustrates that both the mean and median offer a similar progression within Assignments 1 – 7.

Traditional pedagogies focus on the linguistic features of academic texts together with the rules associated with language patterns and ensure learners are given access to these in isolation from reading texts.

Besides various theme and rheme patterns found within different genres, the three main categories that students had to use were the following:
Conjunctive cohesion – co-ordinating, correlative and subordinate conjunctives
Lexical cohesion – repetition, synonymy, antonymy, hyponomy and collocation
Grammatical cohesion – reference, substitution and ellipsis.

By appropriate I am referring to genre conventions applicable to argumentative essays.

The difference in scores between Assignments 4 and 1; 4 and 3; and 7 and 4 have a P value of 0.000 which shows that the difference between these scores is highly significant. In other words, there is < 1% chance that the difference is due to a random occurrence. On the contrary, the difference between Assignments 6 and 5; 7 and 6; and Test 2 and Assignment 7 have a P value of 0.747, 0.463 and 0.176 respectively. This shows that the difference in these matched pairs is not statistically different.
Table 4.2 above also shows that the difference in literacy scores of the matched pairs of Assignment 7 and 6 (part of task 2 in the second half of the module), and Test 2 and 7 (both summative assignments for the second half of the module) also had a higher number of positive ranks than mean ranks. However, according to the Wilcoxon signed-rank test, these results are not statistically significant. Consequently, these results have not been included in this part of the discussion.

Table 4.2 also shows that the decrease in scores between Assignment 6 and 5 is not statistically significant and will therefore also not be considered for discussion.

The reasons given for decreased literacy scores were:
1. A change in academic complexity of the reading materials and task requirements.
2. A change in pedagogic practice.
3. Difference in type of text used to scaffold academic literacy skills.
4. Insufficient time for learners to internalize academic language patterns.

Does this perhaps provide some level of criticism for Krashen’s $i + 1$ theory? One can only speculate.