READING STRATEGY INSTRUCTION IN GRADES 4 to 6:
TOWARDS A FRAMEWORK FOR IMPLEMENTATION

Nanda M Klapwijk

Dissertation presented for the degree of Doctor of Philosophy
at Stellenbosch University

Promoter: Prof C van der Walt
Co-promoter: Dr RR Nathanson

December 2011
Declaration

By submitting this dissertation electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the authorship owner thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Signature: .......................................................... Date: ......................................................
Abstract

This study focuses on the effect of a reading strategy instruction research intervention on teachers and learners in Grade 4 to 6 at a primary school in the Western Cape.

Literacy levels for South African Intermediate Phase learners remain at a disturbingly low level and Systemic Evaluation Assessments performed by the Department of Education show that reading, and more specifically reading comprehension, is a serious area of concern. A closer look at the Revised National Curriculum Statement and in-service as well as pre-service teacher training courses reveals that while teachers are trained to teach reading, very little, if any, focus is placed on training them how to teach comprehension. With a growing trend towards English as language of instruction for multilingual, non-English first language learners, the need to equip learners with ways of constructing meaning from texts becomes ever more crucial.

This study addresses the need for reading comprehension through the use of reading strategies – conscious tools that readers can be taught to improve their individual meaning-making efforts during the reading process. The study implements reading strategies through an intervention based on pre-selected reading strategies set within a structured teaching approach which aims to provide teachers (and learners) with adequate guidance and support for implementing reading strategies.

Through a case-study design this study utilises a mixed-method methodology for gathering both quantitative and qualitative data. The quantitative data serve to provide baseline data of selected reading-related abilities for learners before the start of the intervention, and to provide comparative data for specific measurements taken before and after the intervention. The qualitative data, gathered through classroom observations, unstructured interviews and obtaining samples of learners’ work, provide rich, in-depth data about how teachers and, to a lesser extent, learners took on reading strategy instruction, and what factors influenced them in the process.
This study found that a multitude of factors affect the uptake of strategy instruction as part of everyday teaching practice, and, furthermore, that teachers and learners move through distinct phases in their uptake of reading strategy instruction.

While the study highlights a number of issues that are important to reading strategy instruction in Grades 4 to 6 in South Africa, a few of the more pertinent issues are the following: (1) teachers seem to need specific basic knowledge of language and texts for effective reading strategy instruction to take place (and very little, if any, research seems to address this issue), (2) the frequency of reading strategy instruction seems crucial to its success – the more often, the better, (3) engagement with teachers over a longer period is necessary for effective change in their instructional methods to take place, and (4) the gap between research and practice (that which is taught in classrooms) remains considerable.

The findings of this study, while specific to reading strategy instruction, contribute to the rapidly-growing body of knowledge on reading comprehension instruction, (particularly within a multilingual environment) and teacher development from the basis of research that is focused on changing teacher practice.
Opsomming

Hierdie studie fokus op die uitwerking van ‘n intervensie oor die onderrig van leesstrategieë op Graad 4 tot 6 onderwysers en leerders by ’n Wes-Kaapse laerskool.

Die geletterdheidsvlakke van Suid-Afrikaanse leerders in die Intermediêre Fase bly kommerwekkend laag, en Sistemiese Evalueringstoetse wat deur die Departement van Onderwys gedoen is, toon dat lees, en meer spesifiek leesbegrip, ‘n ernstige bron tot kommer is. Wanneer in meer detail gekyk word na die Hersiene Nasionale Kurrikulumverklaring, asook na die opleidingskursusse van diensdoendende onderwysers en onderwysstudente, blyk dit dat hoewel onderwysers geleer word hoe om lees te onderrig, daar min, indien enige, fokus geplaas word op die onderrig van leesbegrip. Met die toename in die gebruik van Engels as taal van onderrig vir meertalige, nie-Engelssprekende eerstetaal-leerders word dit al hoe meer belangrik dat leerders weet hoe om betekenis uit tekste te skep.

Hierdie studie maak gebruik van leesstrategieë om die behoefte aan leesbegrip aan te spreek – leesstrategieë is metodes wat leerders kan aanleer om bewustelik toe te pas om hul individuele pogings tot betekenisskepping te verbeter. Die studie implementeer leesstrategieë d.m.v. ‘n intervensie wat van voorafgeselekteerde leesstrategieë gebruik maak en waarvan die opleiding sodanig gestruktureer is dat onderwysers (en leerders) die gepaste leiding en ondersteuning gebied word vir die implementering van leesstrategieë.

Die studie gebruik ‘n gevallestudie-ontwerp tesame met ‘n ‘gemengde-metode’ metodologie wat vir die insameling van beide kwantitatiewe en kwalitatiewe data voorsiening maak. Die kwantitatiewe data verskaf basisdata oor geselekteerde leesverwante vermoëns vir leerders voor die aanvang van die intervensie, en dien as vergelykbare data vir spesifieke metings voor en na die intervensie. Die kwalitatiewe data, wat ingesamel is deur klaskamerwaarnemings, ongestruktureerde onderhoude en voorbeeldde van leerders se werk, verskaf ryk, diepgaande data oor hoe onderwysers en, tot ‘n mindere mate, leerders die onderrig van leesstrategieë aangeneem het, en watter faktore hulle in hierdie proses beïnvloed het.
Hierdie studie het bevind dat ’n verskeidenheid faktore ’n invloed het op die aanvaarding van strategie-onderrig as deel van alledaagse onderrigpraktyk, en veral dat onderwysers en leerders deur spesifieke fases beweeg in hul aanvaarding van leesstrategie-onderrig.

Hoewel die studie lig werp op verskeie belangrike kwessies vir die onderrig van leesstrategieë in Graad 4 tot 6 in Suid-Afrika, is ’n paar van die meer pertinente kwessies die volgende: (1) dit blyk dat onderwysers spesifieke basiese kennis van taal en tekste nodig het vir effektiewe onderrig van leesstrategieë (en dat min, indien enige, navorsing skynbaar hierdie kwessie aanspreek), (2) die gereeldheid van leesstrategie-onderrig blyk kritiek tot die sukses daarvan te wees – hoe gereelder, hoe beter, (3) betrokkenheid by onderwysers oor ’n langer tydperk is nodig om te verseker dat hulle hul onderrigpraktyk verander, en (4) die gaping tussen navorsing en realiteit (dit wat in klaskamers onderrig word) blyk steeds aansienlik te wees.

Hierdie studie se bevindinge, hoewel spesifiek gerig op die onderrig van leesstrategieë, dra by tot die snelgroeiende kennisveld oor die onderrig van leesbegrip (veral in ’n meertalige omgewing) en die ontwikkeling van onderwysers vanuit die oogpunt van wat vereis word om onderrigpratkyk te verander.
Table of Contents

Acknowledgements/Bedankings ................................................................. i
List of Tables .............................................................................................. ii
List of Figures ............................................................................................ iii

Chapter 1  Positioning the Study ................................................................. 1
1.1 Introduction ......................................................................................... 1
1.2 Context of the study ............................................................................. 2
1.3 Motivation for the study ..................................................................... 5
1.4 Aim of the study ................................................................................ 7
1.5 Research design .................................................................................. 8
1.5.1 Data collection ............................................................................... 8
1.5.2 Data analysis .................................................................................. 9
1.6 Conceptual framework – positioning the study .................................. 10
1.7 Outline of chapters ............................................................................ 13
1.8 Definition of terms ............................................................................ 14
1.9 Definition of constructs and delimitation of the study ..................... 15
1.9.1 Reading and literacy .................................................................. 16
1.9.2 A definition of reading comprehension ....................................... 17
1.9.3 Teacher development and change ................................................. 18

Chapter 2  Theoretical Perspectives on Reading, Reading Comprehension and Reading Comprehension Instruction ................................................. 19
2.1 Early perspectives on reading ............................................................ 21
2.1.1 A scientific view of reading ......................................................... 22
2.1.2 Toward a meaning-making view of reading .................................. 24
2.1.2.1 Associationism ...................................................................... 26
2.1.2.2 Unfoldment Theory ............................................................... 27
2.2 A Behaviourist perspective: reading as decoding ............................ 30
2.2.1 Behaviourist perspective and reading instruction ....................... 32
2.2.2 A return to meaning making in reading ...................................... 34
2.3 A Cognitive perspective: reading for meaning ............................... 35
2.3.1 Information-processing models .................................................... 36
2.3.2 Schema Theory .......................................................................... 38
2.3.3 Metacognition ............................................................................ 40
2.3.4 Constructivism ............................................................................ 42
2.3.5 The Cognitive perspective and reading instruction .................... 42
2.4 A Social perspective: reading in social context ............................... 43
2.4.1 The role of text and context ....................................................... 45
2.4.2 The Social perspective and reading instruction .......................... 46
2.5 An Early Literacy perspective: reading as literacy development .... 50
2.5.1 Reading readiness vs. emerging into literacy ............................... 52
2.5.2 A critical view of emergent literacy ............................................ 53
2.5.3 Early Literacy Development and reading instruction .................. 54
2.6 Reading in a second language ......................................................... 56
2.7 Writing and comprehension .............................................................. 59

Chapter 3  A View of Known Practice ......................................................... 64
3.1 Reading instruction in South Africa ................................................... 64
3.2 A theoretical perspective of the National Curriculum Statement .... 66
3.3 A critical perspective on the RNCS ................................................... 69
3.4 Reading comprehension and the National Curriculum Statement .... 70
7.4.1 Creating a context for a proposed framework: the possibilities of teacher
7.4 Contribution of the study: Towards a Framework for Reading Strategy
7.3.5 Measurable knowledge transfer
7.3.4 Required teacher knowledge: becoming familiar with RSI
6.2.2.1 Uncertainty and lack of confidence
6.2.2.2 Doing things ‘right’ or ‘wrong’
6.2.2.3 Controlling learners’ responses
6.2.2.4 Preparation and attempting too much too soon
6.2.2.5 Teacher change in Implementation Phase 1
6.2.3 Implementation Phase 2 (Experimentation)
6.2.3.1 Teacher knowledge and reading strategy instruction
6.2.3.2 Teacher approach and acceptance of support
6.2.3.3 Teacher change in Implementation Phase 2
6.2.4 Independence Phase
6.2.5 ‘What’ and ‘How’ and Teacher Change
6.3 Learners’ uptake of strategy instruction
6.3.1 Learners and reading strategies
6.3.2 Purpose for reading and text type
6.3.3 Activating Prior Knowledge
6.3.4 Questioning
6.3.5 Summarisation
6.4 Conclusion
6.1 School attendance
6.1.2 Language of Learning and Teaching (LoLT)
6.1.3 Multilingual classes
6.1.4 Administrative burden
6.1.5 Class size
6.1.6 Learner literacy levels
6.1.7 Teacher expectations
6.1.8 Reading resources, reading culture and teaching of reading
6.1.9 Teacher knowledge
6.1.9.1 Text type and genre
6.1.9.2 Text structure
6.1.9.3 Putting language concepts into context
6.1.9.4 Text-level processing
6.1.9.5 Existing research on knowledge specific to reading strategy instruction
6.1.10 Concluding remarks
6.2 Expectation Phase
6.2.1 Expectation Phase
6.2.2 Implementation Phase 1
6.2.2.1 Uncertainty and lack of confidence
6.2.2.2 Doing things ‘right’ or ‘wrong’
6.2.2.3 Controlling learners’ responses
6.2.2.4 Preparation and attempting too much too soon
6.2.2.5 Teacher change in Implementation Phase 1
6.2.3 Implementation Phase 2 (Experimentation)
6.2.3.1 Teacher knowledge and reading strategy instruction
6.2.3.2 Teacher approach and acceptance of support
6.2.3.3 Teacher change in Implementation Phase 2
6.2.4 Independence Phase
6.2.5 ‘What’ and ‘How’ and Teacher Change
6.3 Learners’ uptake of strategy instruction
6.3.1 Learners and reading strategies
6.3.2 Purpose for reading and text type
6.3.3 Activating Prior Knowledge
6.3.4 Questioning
6.3.5 Summarisation
6.4 Conclusion
6.1.1 Concluding remarks
6.1.2 Language of Learning and Teaching (LoLT)
6.1.3 Multilingual classes
6.1.4 Administrative burden
6.1.5 Class size
6.1.6 Learner literacy levels
6.1.7 Teacher expectations
6.1.8 Reading resources, reading culture and teaching of reading
6.1.9 Teacher knowledge
6.1.9.1 Text type and genre
6.1.9.2 Text structure
6.1.9.3 Putting language concepts into context
6.1.9.4 Text-level processing
6.1.9.5 Existing research on knowledge specific to reading strategy instruction
6.1.10 Concluding remarks
6.2 Expectation Phase
6.2.1 Expectation Phase
6.2.2 Implementation Phase 1
6.2.2.1 Uncertainty and lack of confidence
6.2.2.2 Doing things ‘right’ or ‘wrong’
6.2.2.3 Controlling learners’ responses
6.2.2.4 Preparation and attempting too much too soon
6.2.2.5 Teacher change in Implementation Phase 1
6.2.3 Implementation Phase 2 (Experimentation)
6.2.3.1 Teacher knowledge and reading strategy instruction
6.2.3.2 Teacher approach and acceptance of support
6.2.3.3 Teacher change in Implementation Phase 2
6.2.4 Independence Phase
6.2.5 ‘What’ and ‘How’ and Teacher Change
6.3 Learners’ uptake of strategy instruction
6.3.1 Learners and reading strategies
6.3.2 Purpose for reading and text type
6.3.3 Activating Prior Knowledge
6.3.4 Questioning
6.3.5 Summarisation
6.4 Conclusion

Chapter 7 Review and Conclusions: Towards Implementation ............... 230
7.1 Introduction
7.2 Addressing the research conditions
7.3 Answering the research questions
7.3.1 Factors that influenced teachers’ reading strategy instruction
7.3.2 Teachers’ instructional practices: from expectation to independence?
7.3.3 Required teacher knowledge: becoming familiar with RSI
7.3.4 Factors that influenced learners’ reading strategy instruction
7.3.5 Measurable knowledge transfer
7.4 Contribution of the study: Towards a Framework for Reading Strategy
7.4.1 Creating a context for a proposed framework: the possibilities of teacher
Instruction
7.4.2 Proposing a reading strategy instruction framework
7.4.3 To what extent is reading strategy instruction possible?
7.5 Recommendations for implementation
7.5.1 Explicit reading comprehension instruction in teacher-training courses
7.5.2 Identify 'linguistic knowledge' required for reading strategy instruction .....250
7.5.3 Adaptation in teacher support to engender lasting change ..........................251
7.5.4 Research component in PRESET, INSET and professional development courses ..........................................................................................................................................................................................252
7.5.5 Strengthen multilingual teaching principles in teacher-training courses ......253
7.6 Limitations of the study ..................................................................................254
7.7 Future prospects .............................................................................................255
7.8 Final thoughts .................................................................................................255

References .............................................................................................................257
Addendum A – Teacher Checklist ..........................................................................286
Addendum B – Assessment Schedule .....................................................................287
Addendum C – Burt Word Reading Test ...............................................................289
Addendum D1 – Cloze Test for Grade 4 ...............................................................291
Addendum D2 – Cloze Test for Grade 5 ...............................................................292
Addendum D3 – Cloze Test for Grade 6 ...............................................................293
Addendum E – WCED literacy results for research school .................................294
Addendum F – Exploratory Test .............................................................................296
Addendum G – Strategy Transfer Test ....................................................................297
Addendum H – Samples of Learners’ Work ..........................................................299
Addendum I – WCED Permission for Research ...................................................301
Addendum J – Stellenbosch University Ethical Clearance for Research ...............302
Addendum K – Informed Consent form for teachers .............................................303
Addendum L – Informed Consent Form for learners .............................................306
Addendum M – Real Age & Burt Age results (ANOVA) ........................................309
Addendum N - Raw data - Real Age, Burt Age, Cloze scores ...............................313
Addendum O – Comparison of ET and STT scores for Experimental Group .......317
Addendum P – Original Afrikaans utterances ......................................................319
Addendum Q1 – Reading text 1 ............................................................................321
Addendum Q2 – Reading text 2 ............................................................................322
Addendum Q3 – Reading text 3 ............................................................................323
Addendum R – Sample of observation notes .........................................................324
Addendum S – Extract from proposed national curriculum .................................325
I would like to extend my thanks and appreciation to:

- Prof Christa van der Walt and Dr Rénee Nathanson for their professionalism and integrity, guidance and feedback, kindness and unwavering support. Dit was ‘n plesier en ‘n voorreg om hierdie proses saam met julle deur te loop.

- Prof Martin Kidd of the Centre for Statistical Consultation at Stellenbosch University for his invaluable assistance with data analysis and interpretation.

- My ma, wat my oorspronklik na Matriek in staat gestel het om hierdie reis te begin en geleer het waar om my krag te vind, en my broers vir hulle lojaliteit en humor.

- Annelie van Jaarsveldt en Anlen Boshoff vir datakontrole en teksversorging.

- Nadine & Coenie Brand vir ‘n gerieflike blyplek op Stellenbosch.

- The teachers and learners at the research school who for ethical reasons must remain anonymous but without whom there would be no study. Dankie vir julle vriendelikheid, tyd en bereidwilligheid onder somtyds moeilike omstandighede. Alle voorspoed met die reuse taak wat julle daagliks verrig.
List of Tables

Table 1  Research-based strategies and strategies used in this research  91
Table 2  Reading phases and related reading strategies  93
Table 3  Grouping of learners and data-gathering participation  105
Table 4  Strategy Transfer Test scoring rubric  114
Table 5  Inter-rater reliability results for Strategy Transfer Test  115
Table 6  Calculation of reading age difference  123
Table 7  Mean age totals and mean reading age difference per group  124
Table 8  Average Cloze Test score  126
Table 9  Cloze Test score vs. reading age difference  127
Table 10  Effect size analysis of Exploratory Test measurements  131
Table 11  Effect size analysis of Strategy Transfer Test measurements  133
Table 12  Linguistic knowledge for strategies used in intervention  162
Table 13  Examples of learners’ questions  225
List of Figures

Figure 1 Conceptual Framework 12
Figure 2 Data-gathering sequence and integration 102
Figure 3 Analysis and interpretation of data 121
Figure 4 Mean Burt Age and mean Real Age for groups 124
Figure 5 Comparison of mean age groups 125
Figure 6 Scatterplot of mean reading age difference vs. Cloze scores 128
Figure 7 Interaction of What factors and How phases 140
Figure 8 Teachers’ reading strategy instruction phases 170
Figure 9 Learners’ reading strategy instruction phases 218
Figure 10 Context for reading strategy instruction framework 242
Figure 11 Reading strategy instruction framework 244
Chapter 1

Positioning the Study

“There is no reading without reading comprehension”
Goodman & Goodman (2009:92)

1.1 Introduction

Reading is, without doubt, considered to be one of the most important linguistic skills that need to be developed in young children. All academic achievement “depends to a lesser or greater extent on reading literacy” (Pretorius & Machet, 2004:45), or as stated in the South African Department of Education’s National Reading Strategy, “reading serves as a building block upon which all other learning takes place” (Department of Education, 2008:19). Parris, Gambrell and Schleicher (2008:10) argue that the ability to read is a fundamental necessity for “full participation in one’s society and economy”. However, developing the ability to read successfully is not a simple process: “reading, like thinking, is very complex” (Clay, 1991:320). Reading is about more than the ability to recognise letters and decode words. Reading is ultimately about constructing meaning from written text (Graves, Juel and Graves, 1998; Snow, 2002a; Williams, 2008). In other words, the aim of reading is to comprehend what is being read. Reading comprehension requires the “integration of meaning across words, sentences and passages” (Paris & Hamilton, 2009:40) and the “simultaneous, flexible consideration … of multiple elements” (Cartwright, 2009:115). Dreyer and Nel (2003:349) consider the ability to read and understand texts as “one of the most crucial skills that students … need to acquire” and describe reading comprehension as the “essence of reading”, whereas Leu et al. (2008:321) take an even stronger view in describing reading comprehension as “central to success in the 21st century”.

Goodman & Goodman (2009:92) are of the opinion that “the study of reading is the study of reading comprehension”. The focus of this study then, while related to the reading process in general, is aimed at the issue of reading comprehension, and more specifically, implementing the teaching of reading strategies with a view to improved reading comprehension in the current South African Intermediate Phase school curriculum.
1.2 Context of the study

Over the past few decades literacy and the consequences of being illiterate have become a concern worldwide. South Africa is often described as being in a ‘literacy crisis’, and indeed, South African Grade 4 learners were placed last out of 40 countries in the Progress in International Reading Literacy Study (PIRLS) survey, which studies the reading achievement and reading behaviours and attitudes of fourth-grade students (Howie et al., 2007). The Western Cape Education Department’s Literacy and Numeracy Strategy document refers to “alarmingly poor literacy levels” (Department of Education, 2006:4). South African literacy statistics further reflect that some 29 percent of the population is illiterate (READ, 2010). This is a situation that must be remedied at primary school level in order to produce learners who can one day compete in the 21st century ‘knowledge economy’ that demands ever higher levels of literacy. The question is: to what extent and how is literacy in general and reading in particular being addressed in South African schools?

In terms of a focus on reading as part of literacy, the Department of Education launched their National Reading Strategy (NRS) in February 2008, partly in support of the United Nations Literacy Decade 2003-2013 and Literacy for All campaigns to increase literacy rates by 50% by the year 2015, but with the main goal of “improv[ing] reading competence of learners” (Department of Education, 2008:5).

South Africa’s current school curriculum, originally introduced in 1997 under the name Curriculum 2005, places a high premium on literacy as a means to both personal development and the nation’s economic prosperity. Curriculum 2005 was designed to “rationalize and consolidate” nineteen different educational departments, each with their own curriculums and syllabi, “into a single, core syllabus” (Department of Education, 2002:4). Curriculum 2005 was revised in 2000 and replaced with the Revised National Curriculum Statement (RNCS) in 2002. The revisions of the RNCS included streamlining and reducing the curriculum design, simplifying its language, aligning curriculum and assessment and strengthening its implementation by improved teacher orientation and training, support materials and provincial support (Department of Education, 2002:7).

However, despite the improvements intended by the RNCS - which also include a stronger focus on multilingualism and learners’ right to be taught in their home language – it would seem that literacy objectives are not being met. The report of the
last Grade 6 Intermediate Phase Systemic Evaluation\(^1\) shows that 63% of learners scored at the ‘Not Achieved’ level in the Language of Learning and Teaching (LoLT) tasks (Department of Education, 2005:78). In the Languages learning area, learners scored 51% for the Reading and Viewing learning outcome, and only 31% for the Thinking and Reasoning outcome. What was further noticeable in the Languages learning area scores is the fact that learners achieved an average of 49% in multiple choice questions, but only achieved an average of 31% for open-ended questions. This seems to indicate that where test questions do not allow some form of ‘deduction of meaning’ (as is possible to a degree in multiple choice questions), learners lack sufficient understanding and struggle to formulate their own answers. As Langer et al. (1990:464) confirm, open-ended questions allow learners “to better reveal what and how well they understand”. When viewing learners’ scores for content subjects the same trend appears in the Systemic Evaluation results: for Natural Science learners scored the lowest (35%) in Learning Outcome 1 (Scientific Investigations) which focuses on evaluating and communicating findings. The report describes this result as “probably the result of difficulties experienced in communicating and grasping intended meanings” (Department of Education, 2005:93).

While the use of ‘intended meanings’ in reference to making meaning from reading material (texts and tests) is debatable from a social learning point of view - the view taken by this study, and a view that the RNCS seems to aspire to (see 3.2) - the statement “grasping intended meanings” does seem to indicate not only that the LoLT may be an issue in learners’ low Systemic Evaluation scores, but that comprehension of information is an issue: in order to formulate an own response (as required in open-ended questions), a learner must not only be linguistically competent in a specific language, but also be able to understand (construct meaning from) a test/text. As Calfee (2009:xiii) states, “the capacity to explain one’s thinking is critically important in school tasks” and underlines the importance of the development of comprehension. Based on the Systemic Evaluation results, it is clear that constructing meaning from a text is a problem amongst South African (Grade 6) learners. Dixon & Peake (2008:74) point out that “if we are failing to teach children to comprehend what they are reading ... then critical [thinking] is unlikely to be part of the pedagogical practices of many teachers”. The question is: how is the issue of

---

\(^1\) The Intermediate Phase Systemic Evaluation is performed every three years. The most recent evaluation was conducted in 2009. Results were not available at the time of writing this dissertation.
reading comprehension addressed in the curriculum (if at all), and how is reading comprehension taught in South African schools, if at all?

In South Africa the emphasis in teaching reading in general seems to be more on comprehension testing or what this study calls the ‘three-step process’: handing out a text after announcing the topic, reading the text and asking learners to answer written or oral questions afterwards, and an overemphasis on phonics in early reading instruction. As Nathanson (2008:6) states, a clear need exists “for research that investigates alternatives to the kinds of ... literacy instruction currently provided in many South African schools”.

During the past 20 to 30 years, research has shown that comprehension “can be increased significantly when it is taught explicitly” (Paris & Hamilton, 2009:49). Pressley (2001) states that “[t]he case is very strong that teaching ... students to use a repertoire of comprehension strategies increases their comprehension of text”. In essence, comprehension strategies are the things that skilled readers do to ensure that they understand what they read. Research about comprehension strategy instruction ranges from work as early as Durkin’s classroom observations in 1978 to 1979 to the seminal study done on reciprocal teaching by Palincsar and Brown (1984) to the work by Pressley throughout the 1980s and into the 21st century. Reading strategy instruction has been an education focus in countries such as the United States, the United Kingdom, Australia and New Zealand for up to 30 years. Multiple studies have found the teaching of reading strategies effective, for example Palincsar and Brown (1984), Pressley and Harris (1990), Pressley (2001, 2005), Block and Duffy (2008) and Williams (2008) to name a few. As many as 45 individual reading strategies have been documented through research, although this number has more recently been reduced; Block and Duffy (2008:22) identify nine reading strategies that have been researched and validated as highly successful since 2000. These strategies include, amongst others: predicting (sizing up a text in advance), monitoring (checking comprehension during the reading process), fix-it strategies (stopping and re-reading when meaning is unclear), summarizing (finding main ideas) and inferring (connecting text to prior experience and knowledge).

Although terms such as “skilled readers” and “repertoire of strategies” could imply the use of a set of skills, it is important to point out that teaching reading strategies is not the same as teaching reading skills (Dole et al., 1991). In essence skills assume that, through repeated practice and drills, readers will automatically apply
the skills they learn to whatever they read. Basically, skills are applied the same way each time without conscious thought. Strategies, on the other hand, are applied consciously and adapted to a particular situation (Block & Duffy, 2008). For example, word recognition, an essential skill for reading success, is learned until it becomes automatic. By contrast, a strategy, such as predicting, is applied differently in each reading situation because each reader brings a different purpose and different prior knowledge to the situation. However, like skills, strategies must be taught directly and intensively with the ultimate goal that learners are able to use the trained strategies autonomously, skilfully and appropriately (Pressley & Harris, 1990). Strategy instruction should ideally occur across the school curriculum and across the school day, every day until learners use the strategies independently. To achieve this strategy instruction will have to be included in reading (and all learning) instruction for as long as it takes.

1.3 Motivation for the study

Despite research evidence of the value of reading strategies, two issues appear clear: (1) there seems to be “very little, if any, explicit and continuous strategy instruction” (Pressley, 2001, 2005; Van Keer, 2004; Pressley and Harris, 1990) in classrooms, and (2) there seems to be a distinct lack of research into and professional development of teachers in terms of reading comprehension instruction – most development seems focused on reading instruction (Sailors, 2008:653).

There seem to be three reasons for the ‘non-uptake’: firstly a lack of proper teacher education (Sailors, 2008) and therefore a lack of knowledge about reading strategy instruction, secondly perceived time demands involved in preparing teaching material, and thirdly, teachers remaining unconvinced about the effect of strategy instruction on their learners’ progress. Pressley and Beard El-Dinary (1997) state that teachers feel that comprehension-strategies instruction takes “a great deal of classroom time” and that teachers require a “great deal of support to understand and implement comprehension-strategies instruction”. What remains evident is that without professional development teachers will have difficulty implementing comprehension instruction (Block & Duffy, 2008:23).

Generally it would seem that teachers may not have the skills needed for teaching comprehension. This raises questions about the development of teacher training courses in the area of literacy skills and in-service teacher training programmes,
which currently do not seem to focus specifically on issues of comprehension. Sailors (2008:653) states that “teachers are taught basic skills of reading instruction and sent out to teach with the understanding that, in time, they will learn all that they need to know to support comprehension. This is simply not true.”

Research does, however, indicate that teachers are encouraged to change and take on new methodologies and curricula if teacher development initiatives satisfy specific requirements, which include but are not limited to: showing clear and positive benefits to their learners, are meaningfully integrated into life at the school, are supported by the principal, provide teachers with hands-on active learning opportunities (as opposed to listening passively) and provide sufficient time for classroom implementation and adequate support (Huberman & Miles, 1984; Gersten et al., 1997; Pressley & Beard El-Dinary, 1997; Richardson et al., 1991; Richardson, 1998; Torff & Byrnes, 2011).

When one looks critically at the Revised National Curriculum Statement (RNCS) and its requirements, specifically in the Languages learning area, there seems to be very little explicit focus on teaching reading comprehension. In fact, the word ‘comprehend’ does not appear at all in the general RNCS document, nor in the RNCS Languages or RNCS Teacher’s Guide. The word ‘understand/ing’ is used in all three the documents, but only in relation to ‘understanding and speaking a language’ in general – no mention is made of the explicit teaching of comprehension or understanding in terms of reading. The RNCS Teachers’ Guide refers to the use of reading strategies for learners to “read flexibly and purposefully with confidence and enjoyment” (Department of Education, 2003:27) and goes on to list a few strategies, but no guidance is provided for how to go about implementing such strategies. Similarly the RNCS for Home Language provides a detailed list of assessment standards (which includes the mention of ‘reading and comprehension strategies’) under the Reading & Viewing Outcome, but places what is in fact a description of comprehension strategies under the heading ‘reading and viewing’ rather than ‘comprehending/understanding’. The National Reading Strategy states that it intends to implement teacher development programmes in reading strategies (2008:15) and that the school principal’s main responsibilities include ensuring that reading strategies are integrated in all school subjects (2008:16). However, no clear implementation in this regard seems to have been made to date, and like the RNCS, the NRS does not provide a clear distinction between comprehending and viewing and what ‘reading strategies’ entail or how to go about implementing them.
While research findings in general seem to attribute modest but consistent comprehension gains to strategy instruction, Koda (2004:222) states that little information is available about which specific aspects of instruction are actually responsible for reported gains. Koda (2004:218) further points out that “systematic connections between particular sets of strategies and reading effectiveness” have not yet emerged, nor does research properly explain the extent to which “instructional benefits are affected by other variables”, such as reader characteristics, text properties and task nature (Koda, 2004:221).

This study, therefore, aims to contribute to the body of research on comprehension instruction by investigating aspects of instruction that may affect reading strategy instruction, recommending specific strategies, supporting teachers in their efforts to implement reading comprehension strategies and laying the foundation for a reading strategy instruction framework in Grades 4 to 6.

### 1.4 Aim of the study

The overarching aim of this study was to investigate the following: How can reading strategy instruction be introduced and supported to encourage its application by teachers and learners? The following sub-questions were formulated to guide the study:

1. **What influences teachers and learners in taking on reading strategy instruction?**
2. **How do teachers take on reading strategy instruction?**
   2.1 How do teachers and their instructional practices change from the start to the end of the research intervention, if at all?
   2.2 How do teachers’ instructional changes affect learners’ awareness/uptake of reading strategies?
3. **To what extent is the transfer of reading strategy knowledge measurable?**

In responding to the research questions the intention is to perform a critical review of existing literature about reading strategy instruction, and conduct a study that could contribute to the existing body of research on reading comprehension instruction.
1.5 Research design

Mouton and Marais (1990:169) state that the issues investigated in the social sciences tend to be so “enmeshed” that a single approach simply cannot succeed “in encompassing human beings in their full complexity”. Qualitative research is usually regarded as a research orientation that enables reflection on the complexities of human interaction. However, qualitative research is often viewed as “anecdotal” by policy makers and funders who prefer “hard evidence” before agreeing to participation in a project (De Vos et al., 2005:358). At the same time, quantitative research cannot accurately and fully reflect or account for the human element in social science research. The research questions and aims of this study are a good example of this complexity – on the one hand the study aims to observe the ‘how’ and ‘why’ of reading strategy instruction to determine a framework for implementation in schools, but at the same time it aims to provide measurable evidence of knowledge transfer of a set of reading strategies; ‘hard evidence’ that could conceivably act as visible encouragement for teachers to teach what is effectively an invisible skill. For this reason a mixed-method design was used, which incorporates the use of both qualitative and quantitative data-gathering methods. A mixed-method approach assumes that “collecting diverse types of data best provides an understanding of the research problem” (Creswell, 2003:21).

1.5.1 Data collection

The collection of quantitative and qualitative data was done sequentially using a method that can best be described as a variation of what Creswell (2003:216) calls the Sequential Transformative Strategy (STS). In the STS there are two distinct collection phases, however, either method (quantitative or qualitative) may be used first and the results of the two phases are integrated during the interpretation phase. An important feature of the STS is that it is guided by a theoretical perspective, be it a conceptual framework, ideology or advocacy, which is deemed more important in guiding the study than the use of the methods alone. In this study, the critical analysis of existing literature led to a conceptual framework (see 1.6) that guided the data collection process and served as the motivation for change in reading strategy instruction.

This study used three sequential data-collection phases: first quantitative data were collected, followed by a qualitative data-collection phase and finally a second
collection of quantitative data. The first quantitative data collection entailed two sets of information: (1) administering a word reading test and a Cloze test to all Grade 4 to 6 learners who participated in the study to obtain independent baseline data about participants’ reading age and reading comprehension ability before the start of the intervention, and (2) obtaining measurement data from the experimental group (one Grade 5 class) before the start of the intervention for comparison before and after the research intervention. These quantitative data were collected before teachers implemented the research intervention (see 4.4) in their respective classes.

During the same period that the word reading test and Cloze tests were administered, teachers were given an information session about the research intervention. Once teachers were ready to implement the intervention the qualitative data were collected over a period of 15 weeks (two school terms) through classroom observations, unstructured interviews, discussions with teachers and obtaining samples of learners’ work. During this ‘transformational’ phase (in Creswell’s terms) teachers were accompanied and supported if required and where needed.

The third data-collection phase was conducted at the end of the 15 weeks when a final set of quantitative data, in the form of a Strategy Transfer Test, was collected from both the experimental and control group.

1.5.2 Data analysis

Analysis of the Phase 1 quantitative data was done immediately after gathering the data. It must be emphasized that the sole purposes of this phase was to obtain baseline data about learners to frame the intervention, the results of which provide the bulk of the data. After assessing and scoring the word reading test and Cloze test, a Mixed Model Repeated Measures ANOVA test was performed on the data for comparing learners’ measured reading age in their respective grade groups, and a Pearson correlation was used to determine the relationship between learners’ measured reading age and measured comprehension ability.

Whereas the quantitative data collection had a fixed start and end point, the collection and analysis of qualitative data was far less absolute and, to an extent, formed a simultaneous process. My analysis of the qualitative data was guided by principles from existing research, and more specifically principles of qualitative data analysis espoused by Miles & Huberman (1984), Tesch (1990) and Boeije (2010), all
of whom propose what is effectively a three-step process in analysing data. I started the analysis of qualitative data by identifying topics that “occur and reoccur” throughout the data (Tesch, 1990:90), or what Miles & Huberman (1984) call identifying “categories”. In doing this, I identified a range of topics, which although at that point were not listed in any particular order or divided into any particular theme or group, were finally clustered together into two main groups.

The analysis of the quantitative data gathered in the third and final phase of the study enabled the comparison of results between the experimental and control group, and a comparison within the experimental group to determine progress (if any) from the start to the end of the intervention.

1.6 Conceptual framework – positioning the study

A conceptual framework, according to Maxwell (2005:33), is primarily a “conception or model of what is out there that you plan to study, and of what is going on with these things and why — a tentative theory of the phenomena that you are investigating”. Punch (2009:83) describes a conceptual framework as a representation of the “main concepts and variables and their presumed relationship with each other”. In essence, a framework serves to justify and inform research by asking relevant research questions, selecting appropriate methods and identifying potential validity threats to conclusions. Maxwell (2005:35) states that a conceptual framework assists the researcher in understanding what problems have been encountered with existing research and theory, what contradictions the researcher has found in existing views, and how the study can make an original contribution to our understanding. He also warns that while the Literature Review is an integral part of developing a conceptual framework, researchers too often see the Literature Review merely as “covering the field” or being a “description” of existing research. Maxwell (2005:35) recommends that researchers treat existing literature not as an “authority to be deferred to” but rather as a “useful but fallible source of ideas” that can be used to frame issues in alternative ways.

This study will attempt to do just that: it wishes to propose a framework for reading strategy instruction not based purely on a theoretical (literature research) point of view, but also by taking existing practice into account, or at least acknowledging the constraints caused by the gap between research and practice. Clay (1991:16), for example, states that “researchers rarely ask the questions which teachers want answered … and educators rarely work to implement the implications of particular
research findings”. Clay further claims that researchers (theorists) are too “general” in their documenting of advances in understanding, and that researchers and teachers alike would be served better if practice and theory were considered together in order to inform each other. In South Africa teachers feel overwhelmed by policy documents and professional development initiatives (see Chapter 6) which try to bring new insights from research into classrooms. In the face of large classes and demands for assessment and other administrative documentation from the Education Department, teachers often go into a type of survival mode where they stick to familiar practices, even when these practices do not show the required results. The gap between research and practice is, therefore, a real and abiding one in the South African context.

Since it seems research and practice do not often meet, taking a purely top-down approach (theory informing practice) in proposing a framework is not ideal; at the same time it would be equally impractical to base a proposed framework purely on current practice, because practice is typically fraught with ideological and social issues and must be informed by evidence-based theory and methods to remain current and sustainable. Therefore, this study will position itself in the gap between research and practice by taking into account both existing theory (research) and current reality (practice). The study will attempt to narrow the gap between research and practice in terms of reading comprehension instruction by proposing an instructional framework for teaching reading comprehension in a manner which is sustainable, accessible and measurable for all teachers.

The conceptual framework for this study can be illustrated graphically as follows:
Figure 1: Conceptual framework

In Figure 1 the framework is represented by three 'bands': at the top Known Theory/Research is represented by existing literature of reading comprehension and reading strategy instruction. At the bottom the Known Reality/Practice is represented by issues affecting education in South Africa, such as English as Language of Learning and Teaching (LoLT) in a country where English L1 speakers comprise less than 10% of the total population, multilingualism in education, the place of reading/language instruction, the (Revised) National Curriculum Statement and Department of Education literacy initiatives, such as the National Reading Strategy (2008). In the middle, represented by a dotted outline, this study has been positioned along with teachers and learners. Teachers and learners are positioned here because, in the tension between research and practice, they fulfil a dual role (albeit often involuntarily): while they are the first-line beneficiaries of research outputs in educational research, due to the influences of practice (LoLT, multilingualism, curriculum statements) they also almost solely determine whether research will be taken up and be sustained. Being situated in the middle means that the study is informed by known theory (research) and influenced by known reality (practice) and therefore in a position to attempt to bridge the gap – at least in terms of reading comprehension instruction – between research and practice.
Van Keer & Verhaeghe (2005:544) make a call for research placed in the ‘gap’ between research and practice when they state: "Taking into account this marked gap between empirical research and instructional practice, a major issue of concern is the development and implementation of effective ways to prepare teachers to tune their teaching to recent research findings ... therefore, researchers should accept the challenge to inquire into effective strategies for disseminating research-based practices, for questions remain concerning how to conceptualize teacher learning and, correspondingly, about how to construct professional development so as to foster meaningful change in educational practice."

1.7 Outline of chapters

The conceptual framework for this study places this research in the gap between research and practice with the aim of proposing a framework that can help narrow the gap. However, if the study is situated in the gap between research and practice, it means that it is also influenced by research (known theory) and practice (known reality/existing teaching practice). Since the objective of a literature review is to provide a critical overview of existing knowledge about the main issues related to the study topic, it seemed sensible to create two summaries for this study: an overview of known theory (research), and an overview of known practice (reality).

In order to provide a logical break between the issues of research and practice, the overviews will be divided into two different chapters. The first chapter, Chapter 2, will focus on research (known theory) and will include the following: an overview of different perspectives on reading and their effect on reading instruction and reading comprehension instruction and a short discussion of the link between writing and comprehension. The second chapter, Chapter 3, will focus on the current practice (known reality), and include the following: an overview of reading instruction in South Africa, an analysis of the Revised National Curriculum Statement (based on the perspectives described in the first chapter), and finally, a discussion of reading strategies and reading strategy instruction.

Chapter 4 describes how the research design was informed by the study’s conceptual framework and the research approach and research aims which flowed from the framework. It further describes the study’s research paradigm and methodology, and provides detail about the study’s participants, intervention, instruments used for data gathering and how the gathered data were analysed and interpreted.
Chapters 5 and 6, the Results chapters, provide a detailed description of the results of the analyses and interpretation of the quantitative data (Chapter 5) and qualitative data (Chapter 6) respectively and also set the scene for proposing a framework for reading strategy instruction in accordance with the aim of the study. Chapter 7 concludes the study by drawing together the results of the previous chapters before proposing a framework for reading strategy instruction, and closes with recommendations for future practice and opportunities for future research.

1.8 Definition of terms

The following terms are used repeatedly in this study and, therefore, require some explanation and positioning. Although the following terms have clear definitions, their application is somewhat problematic in the multilingual South African school environment where all learners are considered to be at least bilingual, if not multilingual, and it is often difficult to determine outright what learners’ first/strongest language is.

**Home language (HL)** – The RNCS distinguishes between three types of language instruction in South African schools: home language, first additional language and second additional language. For the purposes of this study ‘home language’ will be seen as synonymous with First Language (L1), and be understood to be the language a learner feels most comfortable using and the language which is assumed to be learners’ dominant language by the school. It also refers to the language most spoken at home by most members of a family. In bilingual or multilingual communities it is possible that more than one language could function as the home language. The insistence that parents indicate one language as a home language is evident of the monolingual bias that remains even in multilingual communities. While the use of ‘home language’ in the RNCS as a type of instruction is intended to refer to instruction in learners’ most spoken language (i.e. any one of the 11 official languages), it is somewhat ironic in the South African education scenario because the Language of Learning and Teaching (LoLT) invariably tends to be English or Afrikaans; according to the 2001 Census$^2$ (Statistics South Africa, 2005:32) Afrikaans is the third most-spoken home language (13,3% of the population), while English is spoken at home by only 8,2% of the population.

---

$^2$ The next National Census is due in 2011
Second language (L2) – in a broad sense ‘second language’ refers to any language learned after one has learnt one’s first language (Richards & Schmidt, 2002). The second language is often a language that plays an important role in a specific country or region even though it may not be the first language of many of the people who use it. English is often a second language in countries where it fulfils important functions, such as the language of education and government, and where learning English is considered necessary to be successful in those contexts. South Africa is an example of a multilingual country where – contrary to what the Constitution and education policies state - English fulfils the main functions of government and education and is perceived to be the ‘language of success’, often resulting in English as LoLT in non-English speaking communities. For the purposes of this study, ‘second language’ will be deemed synonymous with First Additional Language as used in the RNCS because the term ‘second language’ seems to be widespread in literature on language teaching.

English Home Language (EHL) instruction - refers to classes in South African schools where English is the LoLT and is assumed to be learners’ home language or first language. Since parents usually indicate the language in which they prefer their children to receive instruction (a decision that can be influenced by various factors, such as political and social factors), EHL learners do not necessarily receive instruction in their home language. In this study EHL classes and learners are those where the LoLT (English) is assumed to be study participants’ home language.

Language of Learning and Teaching (LoLT) – this refers to the primary language of instruction used in school classrooms. According to the RNCS the LoLT should ideally be the same as the Home Language for the first four years of schooling, whereafter it may change to a learner’s second language.

1.9 Definition of constructs and delimitation of the study

While this study is primarily about teacher change in relation to reading strategy instruction and reading comprehension, the links between reading and literacy development and instructional change cannot be ignored. As will be seen in the chapters that follow, views on the development of the reading process have changed over time to include speaking and writing, much like literacy is generally seen to be a combination of reading and writing. The role of instruction in this process has also changed: from the perception of a person drilling learners through a set number of
skills (see 2.2.1) to a skilful mediator who scaffolds learners’ engagement with text through the use of targeted strategies (see 3.7 and subsections).

1.9.1 Reading and literacy

In general, definitions of and opinions about literacy are multiple and varied; the term ‘literacy’ tends to be a concept that is hard to define in isolation and is often best defined and contained in conjunction with a type of literacy, such as academic literacy, computer literacy or multiliteracy. Barton (2007:38), while describing “a literacy” (in other words, any type of literacy) as “a stable, coherent, identifiable configuration of practices”, also warns that “literacy is such a huge domain that it [still] lacks clear definition” (2007:40).

In this study the term ‘literacy’ will be taken to mean the ability to read and write in a school context. It is, however, necessary to explain the broader context in which this study views literacy, especially because the study focuses on reading and reading comprehension in a multilingual environment; in view of the social and linguistic challenges inherent in such an environment it is necessary to ensure that the framework proposed at the end of this research incorporates a view of literacy which acknowledges these challenges.

The traditional view of literacy is defined in rather simple terms: the ability to read and sometimes write (Gee, 1996:39). The most common view of literacy emanates from educational settings where it is taught in a classroom (Barton, 2007:4), and definitions tend to resemble that of Ogbu (1990) who states that literacy is seen to be “synonymous with academic performance” and “the ability to read and write and compute in the form taught and expected in formal education”. The traditional, autonomous view of literacy is that it is a universal trait independent of specific cultural contexts and ideologies. Gee (1996:39) describes the traditional view of literacy as a view in which, if readers know the language, they can decode writing and use requisite background “facts” to construct the “right” interpretation of a text in their heads which would be roughly the same for all competent readers.

The traditional view of literacy has, however, changed to include the ideological model (Street, 1984) which does not regard literacy as a universal, single trait but rather acknowledges it to be “related to specific cultural contexts associated with relations of power and ideology” (Verhoeven & Durgunoglu, 1998:iix). According to
the ideological model, literacy is not regarded as “something that is done just at school or work” (Barton, 2007:4) but is, instead, seen as a “lifelong context-bound set of practices in which an individual’s needs vary with time and place” (Street, 1993). Literacy is seen to be “almost always fully integrated with … the very texture of wider practices that involve talk, interaction, values and beliefs” (Gee, 1996). Literacy is seen to be “embedded in everyday life” (Barton, 2007:4) and as “dependent on the social institutions in which it is embedded” (Street, 1984:8). The ideological model, therefore, acknowledges that no single literacy is ‘right’ or ‘wrong’, and that all types of literacy are socially constructed. This study supports the view that literacy is socially constructed and that the reading process comprises an interaction between reader, text and (socio-cultural) context.

1.9.2 A definition of reading comprehension

The reading process typically comprises the reader, the text and the activity (Snow, 2002a:11) which all occur within a specific context. Each of the elements brings characteristics to the reading situation that can affect the reading process and outcome. Views about the importance of the reader, text and context in the reading process have, however, changed considerably over the past century. The development of these changes will be highlighted in the discussion of research into reading in Chapter 2. The view of the respective roles as accepted by this study is that the reader plays an active and critical part in constructing meaning and that the reader brings socio-cultural knowledge, skills and experience to the reading process which can lead to the construction of multiple meanings as opposed to a single, author-driven meaning (Cairney, 1990:15; Chapman, 2006:115). Smith (2004:152) goes as far as saying that it is "impossible" to determine the number of alternative meanings there might be in a text because it “depends on what an individual reader is looking for”.

This study, which takes the view that literacy is socially constructed and that the reading process comprises an interaction between reader, text and (socio-cultural) context, views reading comprehension as resulting from “an interaction among the reader, the strategies the reader employs, the material being read, and the context in which reading takes place” (Edwards & Turner, 2009:631). In the context of these beliefs, the study views the value of reading strategy instruction as teaching learners the ‘tools’ with which they can ‘unlock’ their own socio-cultural schemata.
1.9.3 Teacher development and change

The fact that this is an intervention to improve reading strategy instruction implies that attempts will be made to change teachers’ professional practice, in line with the conceptual framework (1.6) that places the study between known reality and known practice. The study thus touches on aspects of teacher change and professional development in relation to reading strategy instruction. It does not attempt to provide a full justification and description of or model for teacher development and change.

This chapter has described the motivation, aims and research design for this study, and has positioned the study within a conceptual framework. Let us start the literature review process with a perspective-based discussion of existing literature on reading and reading comprehension.
Chapter 2

Theoretical Perspectives on Reading, Reading Comprehension and Reading Comprehension Instruction

As the main topic of this research, it would be tempting to launch directly into a discussion of reading strategies and their value and application. However, as Smith (1971:1) states, “[r]eading is a specialised and complex skill involving a number of more general skills that have to be understood in any serious analysis of the subject”. In the same way, reading strategies did not develop in isolation and also cannot be applied in isolation. Therefore, it is necessary to take a step back and consider a short comment on the history of literature related to reading, reading instruction and reading comprehension to gain a better understanding of the human and educational factors involved in the reading process. This chapter, which essentially forms part 1 of the literature review, provides an overview of existing research (known theory) about reading and includes the following: a summary of different perspectives on reading and their effect on reading instruction and reading comprehension instruction, a summary of reading in a second language and finally, a short discussion of the link between writing and comprehension.

This chapter will show that often viewpoints and theories within each perspective overlap in their development and effect on educational practices, and that many ‘new’ theories and models of reading that have emerged over the past few years are at best ‘revised’ or ‘refined’ versions of concepts that have long existed. To quote Venezky (1984:27): “Reading research has not made a disciplined journey over the landscape of time”. In fact, so many theories exist that it would be impossible to cover them all. Theories generally provide frameworks through which various research studies can be linked “within and between fields of study”, and further provide frameworks “for teachers’ practices and researchers’ investigations” (Tracey & Morrow, 2006:7). While the modern field of literacy learning no longer seems to search for a single theory or model of reading that could explain all the components of reading (process, development, disability, instruction), it is important to understand past research and theories in order to gain an informed opinion of reading and research into reading today.
In compiling an overview of research into reading and reading comprehension it therefore seemed more realistic to look at any given selection of theories or any period of progress as part of a ‘perspective’ on reading and reading comprehension, rather than looking at theories in isolation. Therefore, for the purposes of this study I will take a slightly different approach by not so much focusing on the time periods and theories in isolation than on the perspectives (supported by selected theories) that seem to have had a considerable influence on (1) reading instruction and views of reading comprehension in general, and (2) more specifically on reading instruction in South Africa. It must also be pointed out that the selection of perspectives does not pretend to cover all theoretical and research issues that have been part of the history of educational psychology. Also, in terms of the influence on reading instruction in South Africa, the perspectives that are discussed will form both a historical and future view, because (as will become clear during the review) the perspectives under discussion cannot all be said to have taken effect in reading instruction in South Africa. Therefore, the ‘future view’ of the perspectives under discussion is aimed at perspectives that should conceivably be taken into account when considering reading instruction in South Africa today, particularly in a multilingual and multicultural context.

In chapter 1 (see 1.9) the point was made that this study deals with the concept of reading strategy instruction, which implies that reading, comprehension and instruction are tightly interwoven in the teaching and learning process. For that reason I will discuss how the perspective on reading has shaped reading instruction at the conclusion of the discussion of each perspective.

There are a multitude of sources which attempt to summarise the theories of reading from their origins to the theories espoused today, for example Venezky (1984), Graves, Juel & Graves (1998), Turbill (2002) and Tracey & Morrow (2006). The history of reading research is described by Venezky (1984:3) as “not [being] a single, continuous stream of human endeavour but at least four and perhaps as many as six independent threads, each with its own methods and each moving to the beat of a different drummer”. Venezky (1984) identifies the four main threads of reading research as research on reading processes, research on reading instruction, research on the testing movement and finally the study of literacy. Other sources, such as Tracey & Morrow (2006) propose a more detailed division of reading theories and their time periods, such as Behaviourism (1900–1950s), Constructivism (1920–present), Theories of Literacy Development (1930–present), Social Learning (1960s–
present) and Information/Cognitive Processing perspectives (1970s–present). Turbill (2002) takes a different view by concentrating specifically on research into reading comprehension, and identifies five paradigms in reading comprehension research as The Age of Reading as Decoding (1950s-1970s), the Age of Reading as Meaning making (mid-1970s–late 1970s), the Age of Reading-writing Connections (early to late 1980s), the Age of Reading for Social Purposes (early 1990s to the millennium) and the Age of Multi-literacies.

The aforementioned views of theories about reading are certainly useful, but are somewhat constrained by the fact that they have been represented within the parameters of specific dates. As will be discussed in this chapter, while it is true that certain theories of reading gained popularity and were subsequently implemented in a predominantly sequential fashion, it is not true that the thinking and principles behind these theories appeared in the same sequence. This study will, therefore, instead discuss a selection of perspectives on reading that illustrate the progression over time of the growing realisation of the importance of meaning making as part of the reading process – a progression that cannot be demarcated by specific dates. The following perspectives will be discussed:

1. Early perspectives on reading
2. The Behaviourist perspective - reading as decoding
3. The Cognitive perspective - reading for meaning
4. The Social perspective - reading in social context
5. The Early Literacy perspective – reading as literacy development.

2.1 Early perspectives on reading

Research in general, and research into reading and reading comprehension in particular, has mostly drawn on the assumptions, beliefs, values and world views of the multitude of philosophies that exist at any given time. Philosophies, in turn, are human interventions and social enterprises influenced by the “political, social and economic contexts of the society in which they are conceived” (Willis, 2008:1). Reading research during and up to the 19th century was no different, and was largely influenced by the positivist view that all human behaviour could be explained by scientific observation of external processes. Willis (2008:4) describes Comte’s (1848) view that all knowledge exists in an “external order” and can be uncovered through
the positive, or scientific, method which he viewed to be a “logical process” that exists “outside of the emotions of the scientist” and therefore could be used to predict human behaviour. Reagan (2003:41) states that, together with Comte’s positivism, Darwin’s (1808) view that it was imperative to understand “scientifically” how a child developed, saw to it that education research became synonymous with scientific study. Language was viewed as “fundamentally Positivist” and existed as a “knowable entity” which could be described and analysed (Reagan, 2003:41).

Despite the positivist view of research the view of reading and reading comprehension during the 19th century went through considerable changes, moving from one extreme view to another, often in overlapping time periods. Reading was initially viewed as what can be described as an ‘external’ or scientifically observable process. Reading aloud, without a focus on the use of the reader’s voice and memory, was initially considered the only true form of reading. Over time this view developed to a more ‘internal’, meaning-making view, which included the existence and value of silent reading and a focus on the reader’s thoughts and experiences.

2.1.1 A scientific view of reading

During the first part of the 19th century reading was viewed simply as a function of the reader’s memory. The focus seemed to be largely on how texts influenced and affected readers’ memory, and not so much on what happened in the reader’s mind during the reading process. This ‘memory’ view of reading shows influences of the Mental Discipline Theory (ascribed to the writings of Aristotle) which described the mind as a muscle with various ‘parts’ that needed regular exercise to function at its best. Regular exercise mostly referred to the repetitive reciting of texts. The “parts”, when exercised, became stronger and more disciplined and resulted in “intelligent behaviour” (Tracey & Morrow, 2006:16). The Mental Discipline Theory compared learning to exercise, and stated that, as with exercise, learning was only meaningful and worthwhile if it was challenging (Reagan, 2003:122). While the Mental Discipline Theory supported disciplined effort through memorisation and the repetitive reciting of texts, it is worth noting that the “parts” that needed exercising included non-observable aspects of a learner’s mind, such as memory, will, reason, perseverance, attention, imagination, judgement – aspects which today would probably be referred to as cognitive aspects.
The process of reading in the 19th century was regarded as a way of “recapturing the human voice” through a system of “silent symbolic notations” (Faraone, 1990:11; Uzgalis, 2007). Authors and educators of the time regarded reading and reading aloud as the same thing. Reading meant “oral reading” and comprehension was viewed as the “correct and natural pronunciation” of text (Venezky, 1984:13; Willis, 2008:70). For the learner a comprehensible text was the same thing as a decodable text, in other words, finding meaning in the text was not the focus of reading, nor did it seem to matter whether the reader comprehended the text or not. The learner’s ability to communicate the written text through oral reading indicated successful mastery of the meaning of the text, and the teacher’s role was simply to ensure that recitation took place. The focus of reading, therefore, seemed to be on the text, not the reader; oral recitation of text content (as opposed to meaning) constituted reading and the reader seemed to be almost incidental in the reading process as a vehicle for the author’s thoughts. In fact, Barnes (1884) as cited by Willis (2008:74) believed that “to use the voice properly implied that the reader understood (comprehended) the text and how to present it in accord with the author’s intent during oral reading”.

Reading was regarded as a primarily perceptual activity and focussed almost solely on decoding, i.e. identifying letter-sound correspondences (Gillen & Hall, 2003:4). Words were learnt independently of context and in “short sentences of unengaging content” and where comprehension is mentioned in the pre-1900 era, it seemed to develop out of knowledge of the alphabet and sound-letter correspondences (Willis, 2008:74). Repeated oral recitation of the same text would result in it becoming part of a reader’s own memory.

It should be pointed out that although the role of memory in reading was very one sided in the early views of reading, this one-sidedness should not detract from the role of memory as an acknowledged contributor in the development of reading ability. When compared to modern reading instruction methods, the view of vocabulary as main indicator of comprehension may seem insufficient for acquiring meaning from a text. However, the role of vocabulary in increasing reading comprehension is still

---

3 Wherever sources from the 18th and 19th century are indicated but were not obtainable (other than in archives in the countries where they were written) they will be indicated by date, followed by the fully-referenced author/s who cited them. Where possible, the title of the original 18th or 19th century source will be provided in a footnote.

4 Willis’s citation refers to Barnes’s 1884 publication entitled New National Fifth Reader.
promoted today, e.g. Ouellette, 2006, Blachowitcz et al., 2006, although it is not completely undisputed. Kesckes (2008:388) for example, is of the opinion that meaning resides in words (vocabulary) themselves, and states that “there are no meanings that are context-free because each lexical item is a repository of context itself”, filled with and referencing existing contexts.

The method of repeated reading has also not completely been disregarded in modern reading instruction, although the focus and intention of the method is not limited to oral recitation of a text any longer. Research about rereading can be used as an example of the need to understand “how cognitive processes change with repetition” and provides a window for “observing knowledge influences on reading skill development” (Levy & Collins, 2008:234). Studies (Kuhn & Stahl, 2000; Semonick, 2001; Rasinski & Hoffman, 2003) have shown that repeated reading is useful in areas such as pronunciation, expression and pace. Levy & Collins (2008) contend that rereading leads to improved word recognition, which leads to increased fluency, which in turn leads to improved decoding ability. Repeated reading is built on the premise that reading skill, like a muscle, needs exercise to grow stronger (Tracey & Morrow, 2006:25).

A further theme that developed out of the positivist, scientific view of reading in the earlier part of the 19th century, was the belief that learning was unlikely to take place unless children were mentally and physically ready (Gillen & Hall, 2003:4). In terms of reading, this belief led to the view of reading readiness (see 2.5.1) which remained a dominant concept in children’s reading till well into the 20th century. The readiness view disregarded children’s thought processes, regarded children as unable to learn anything themselves and viewed reading and writing as separate skills that could only be acquired through structured instruction at a certain age and level of development.

2.1.2 Toward a meaning-making view of reading

There are sources (Faraone, 1990; Turbill, 2002) that claim that although reading theories have always been about analysing the reading process, this analysis did not always include a focus on comprehension. This does not seem to be entirely correct. Much of the literature referenced by this study indicates that while reading was initially largely regarded as purely perceptual and text driven, there were researchers and educators who alluded to finding meaning in reading almost from the outset – this will be shown in the paragraphs that follow. Faraone (1990:10) does, however,
seem to be correct in stating that prior to 1910 the term ‘reading comprehension’ had not yet become a generally used term in educational circles.

The mid-19th century saw various changes which together formed a greater focus on the emergence of meaning in text (although this was not yet referred to as ‘comprehension’) and a reduced focus on the role of memory. Readers were not viewed as entirely passive any longer, and the role of a reader’s existing experience began to be acknowledged. For example, James (1907:141) refers to “dip[ping] by a thought’s guidance into the particulars of experience again and make[ing] an advantageous connection with them”. The concepts of ‘thought getting’ and ‘reading for meaning’ were developed, concepts that brought about a shift in emphasis from oral to silent reading (Willis, 2008:77). Clark (1898:12-13) believed that “training in thought getting [should be] the first result to be expected from the reading lesson” and goes on to state that “the reading lesson should be primarily a thinking lesson, and every shade of thought should be carefully distinguished, no matter how long a time may be consumed” and that holding “any portion of truth in a vital way is better than to have its whole baggage stored in one’s memory”.

Linked to the concept of a reader’s experience, was the growing view that texts should be interesting for readers. A comprehensible text was seen “not only to be a decodable text, but also a readable text” (Faraone, 1990:32). This in turn gave rise to the issue of preparing and/or choosing a comprehensible text for different age groups, especially beginner readers. Reading activities that developed during this period indicate a growing awareness among educators that learners were not passive observers in the reading process, but rather active participants. Teachers were encouraged to select texts that were of interest to learners and within their “range of understanding and experience so that reading for meaning could be enjoyed” (Willis, 2008:65).

In 19th century research mention is further made of the use of “literature” versus school books to promote reading with recommendations of 15 minutes reading a day from “quality literature” (Willis, 2008:78) - which brings to mind the use of quality literature by the Whole Language Approach (Goodman, 1989) and a more recent finding by Block & Duffy (2008:26) that comprehension is increased by reading seven pages of continuous text and doing 20 minutes of silent reading per day. The emergence of the focus on meaning in texts gave rise to the issue of preparing and/or choosing a comprehensible text for different age groups, especially beginner
readers. The idea began to take shape that “appropriate instructional activities, in concert with comprehensible text, could activate the learner to facilitate reading comprehension” (Faraone, 1990:46).

However, even then differences of opinion existed about the different text variables and how/whether they contributed to reading comprehension. A particular point of contention during the 1900s was the issue of gradation (increasing word and sentence length to increase text difficulty between reading texts within the same series). Those opposed to the use of gradation cited concerns about the tampering of literacy pieces for use in older age groups and the use of “mock language” (Faraone, 1990:35). A good example of the alteration of original literature for children’s use in the 1900 era is Charles and Mary Lamb’s “Tales from Shakespeare” (1909), who describe their simplified and shortened versions of Shakespeare’s work as follows: “It has been wished to make these Tales easy reading for very young children”. Their work includes the use of illustrations and substantially simplified language, although they claim to have used Shakespeare’s words “whenever it seemed possible to bring them in” in order to cause the least possible interruption of “the effect of the beautiful English tongue in which he wrote” (Lamb & Lamb, 1807).

Although various new perspectives on the meaning-making processes of reading emerged some emphasis on the use of memory remained. For example, Cole (1870)\(^5\) refers to the “unity of thought and connectedness of ideas” when reading, but then goes on to provide advice about structuring lessons to maximise the text being “remembered” (Willis, 2008:79). However, various theories seem to have ensured that a focus on the meaning-making processes of reading remained alive. Three such theories are Associationism, Structuralism and the Unfoldment Theory.

2.1.2.1 Associationism

Views of reading during the 19th century show the influence of theories such as Associationism (mostly attributed to the writings of Aristotle), which proposed three kinds of connections that could aid memory and learning, namely contiguity (the idea that things that occur together in time or space become associated in the mind), similarity (the idea that people tend to associate things with similar features and properties) and contrast (essentially association by opposition, e.g. dark vs. light,

\(^5\) Willis’s citation refers to Cole’s 1870 publication entitled The institute reader and normal class book, for the use of teachers’ institutes and normal schools, and for self training in the art of reading.
happy vs. sad, etc). One of the defining features of Associationism is that “all ideas, and other mental elements, are associated together in the mind through experience” (Anderson & Bower, 1980:9). Locke (1680), a proponent of Associationism, believed humans had no innate knowledge and that the mind was a blank slate to be filled by experience “in the form of sensation and reflection”, and that these experiences provided the basic materials “from which we construct most of our more complex knowledge” (Uzgalis, 2007; Reagan, 2003). Locke further regarded issues of language as extremely important to attaining knowledge. He believed that words represented ideas, and that words had to be used with the “same meaning” that most people attached to them – if this was not done, a communication failure would result and the “main purpose of language would be defeated” (Uzgalis, 2007). While most of the ideas proposed by Associationism relate more to learning in general than to language learning in particular the idea that all knowledge is associated in the mind through experience continues to exist. Indeed, it forms the basis of Schema Theory (see 2.3.2), a concept which developed during the 1980s and is concerned with the structure of knowledge and how it is presented in memory.

2.1.2.2 Structuralism

Structuralism also influenced the views of researchers and educators during the 19th century. Structuralism is widely regarded as the first major school in psychology which sought to explain the structure of the mind through the study of perception. Wundt (1832-1920), a German psychologist, is generally credited with having done the earliest research with a cognitive view of reading (Kim, 2008). He focussed strongly on the concept of introspection (Plucker, 2003), a process that he believed allowed people to know their inner functioning through what they could gather about the functioning of the external world. In other words, introspection allowed a person to understand the functioning of the mind. Linked to this concept is Herbart’s concept of apperception, the process of adding new ideas to the ideas already known. Herbart (1901:42) describes apperception as “the knowing of what takes place in our own minds”, a process that Willis (2008:65) interprets as adding new ideas to existing ideas “to form a system of ideas”, which in teaching reading indicates the importance of the use of interesting, age-appropriate texts from a variety of genres. Again, the views of Wundt and Herbart remind one strongly of Schema Theory (see 2.3.2) and metacognition (see 2.3.3).
Parker (1883)\(^6\) demonstrates the influence of Structuralism in his definition of reading: he describes reading as *thought getting* and then separates reading into receptive and expressive processes with an emphasis on the importance of silent reading (Faraone, 1990:48). By *thought getting* he implies that reading assumed knowledge of life experiences (similar to Herbart’s “already known ideas”), that reading is primarily a receptive process with ‘thought getting’ (thinking) as its goal, and that reading only becomes expressive through sharing acquired thoughts with others (thought giving). Parker believed that the driving force behind the reading process was the learner’s “experiential background”, and defined reading as broader than merely knowledge of words but rather as a focus on meaning instead of expression of oral reading. He regarded the word subordinate to the sentence and wrote that “[w]e do not learn the word in order to read the sentence, but we read the sentence in order to learn the word” and “[a] sentence, therefore, is the unit of expression” (Faraone, 1990:50). Parker further insisted on two things: (1) that children be allowed to share their understanding of a text in their own words in order to provide evidence of comprehension (although he did not explicitly state this, this view can be seen as the first acknowledgement of the possibility that the reader could construct his own meaning from the text), and (2) that object lessons be used over “skill and drill” and “whole word and whole sentences over phonics analysis to improve comprehension” (Willis, 2008:83). These views were regarded as radical and met with considerable opposition at the time. It would seem, then, that even the current ongoing ‘phonics vs. whole language’ debate is not quite as recent as people like to think.

One of the criticisms levelled at Structuralism by the Behaviourists many years later was that Structuralism primarily studied "non-observable behaviour“ because it was more concerned with the “study of consciousness” (Hall, 1998). However, Structuralism was vindicated with the advent of cognitive psychology in the 1970s which saw a return to the study of internal, non-observable processes. Today Structuralism has taken on a much broader philosophical point of view, and regards language as “the possession of society ... never the possession of an individual” and recognises that “no communicable thought is possible independently of language” (Sturrock, 2003:29, 25).

---

\(^6\) Faraone’s citation refers to Parker’s 1893 publication entitled *Talks on Teaching*
2.1.2.3 Unfoldment Theory

In contrast to Associationism (see 2.1.2.1) which attempts to explain how learning occurs through connections, the Unfoldment Theory was created by theorists (most notably Rousseau (1712-1778)) who believed that learning was facilitated through allowing children to be free to develop and learn naturally based on their own curiosity and interest (Tracey & Morrow, 2006:19; Peltzman, 1991:807). Rousseau believed educators should follow children’s leads in terms of what and when they wanted to learn and that forcing children to learn something that did not hold their interest would lead to a barrier in learning. He believed so strongly in the ‘natural unfolding’ of children’s learning that he recommended that reading and writing be postponed till children were 10-15 years old.

Although the Unfoldment Theory’s main views could be considered rather extreme, some principles survive in modern reading instruction. In terms of increasing reading comprehension, Relevance Theory, as proposed by in 1986 by Sperber & Wilson, states that “an input is relevant to an individual when its processing yields … positive cognitive effects … which make a worthwhile difference to the individual’s representation of the world” (Sperber & Wilson, 2002:251). The principle of relevance is based on the assumption that individuals (readers) are “relevance oriented” and attempt to gain the greatest possible cognitive effect with the least amount of processing effort (Mackenzie, 2002:1). Therefore, individuals tend to focus on information that is, at least to them, the most relevant. Research (Naceur & Schiefele, 2005; Pressley, 1998; Schiefele, 1992) has shown that providing learners with a text that interests (is relevant to) them aids the comprehension of the text. Much modern research has also been conducted into the role of motivation and environment on learners’ performance (Aarnoutse & Schellings, 2003; Van Elsäcker, 2002), and more specifically, on learners’ comprehension (see 2.2.2).

Although expressive oral reading remained important in reading instruction throughout the nineteenth century, reading increasingly included silent reading and thought getting. The reading process was viewed for the first time as a “whole” rather than in separate stages (Faraone, 1990:51). This had a significant impact on teaching reading and saw new reading materials that made use of the sentence and/or story method, reading text silently at the beginning of reading instruction.

---

7 Tracey & Morrow and Peltzman’s citations refer to Rousseau’s 1762 publication entitled Emile, Ou Traite de l’Education, consisting of five parts, each detailing one of the developmental stages of a fictitious child.
before reading the text aloud, and an emphasis on reading comprehension during the whole lesson.

Overall the changes in reading instruction during the latter part of the pre-1900 era were a progressive move away from the importance of memorisation and oral recitation of text towards methods that activated the search for meaning before, during and after silent reading. Decoding and oral reading were accepted as subordinate and complementary to reading instruction, and vocabulary development and teacher questioning increased. Overall the tendency was toward a methodology in reading that would focus more on the learner’s inner experiences and expression (Faraone, 1990:60). Although meaning was still seen as residing primarily in the text there was some acknowledgement that the reader played a role in reading and brought experiences to the reading process. And yet, just as this tendency toward the more cognitive aspects of the reading process emerged, Behaviourism entered the picture and deflected theorists’ and educationists’ thoughts toward a more skills-driven view of the reading process.

2.2 A Behaviourist perspective: reading as decoding

Behaviourism essentially developed in reaction to the “introspective psychology” that developed during the late 19th and early 20th centuries. Instead researchers focused on instructional approaches which gave rise to the theoretical perspective of Behaviourism and remained the predominant educational and psychological theory for well into the 1960s (Tracey & Morrow, 2006:32). Behaviourism drew on Positivism (see 2.1) and called for “experiment, control, objectivity and careful record keeping, concise definitions of behaviour and statistical analysis” (Willis, 2008:188). Watson (2008:6) states that Behaviourism asks “Why don’t we make what we can observe the real field of psychology?” Models about language that emerged from the Behaviourist period were based on observation, often because the study of language evolved from the interests of anthropologists and psychologists who were primarily concerned with the study (observation) of human beings. Fieldwork was emphasized and linguists were advised to study the behaviour of native speakers. Claims about language were viewed as legitimate only if they could be supported by proof of meticulous observation and analysis of as much data as possible (Chapman, 2006:29). Little importance was given to unobservable mental functions, internal processes, emotions or the context in which thoughts evolved. Two underlying assumptions tend to be present in Behaviourism: that behaviour is the result of an
organism’s response to stimuli, and that external stimuli can be manipulated to strengthen or reduce behaviour.

The resulting theories of reading during the Behaviourist period were based on attempts to determine the process of reading and comprehension from observable behaviours or test results. Two influential behavioural theories that emerged during the period were Connectionism, usually attributed to Thorndike (1874-1949) and the Operant Conditioning Theory, usually attributed to Skinner (1904-1990).

Thorndike is credited with developing psychological connectionism. He believed that “neural connections” were formed between perceived stimuli and emitted responses through experiences, that intellect played a part in the formation of neural bonds and, therefore, that people of “higher intellect” could form more bonds and form them more easily than people of lower ability (Plucker, 2007). Thorndike proposed the three laws that were considered to have had a considerable effect on learning (the law of Effect, the law of Readiness and the law of Exercise) which highlighted the importance of linking new knowledge to existing knowledge in a learning situation (Tracey & Morrow, 2006:35-36; Plucker, 2007). The laws also placed focus on the social side of learning, i.e. the importance of learners’ interaction with teachers (even if in terms of Thorndike’s laws the “interaction” would merely entail praise from the teacher upon the successful completion of a task by the learner).

Skinner’s work was largely a continuation of Pavlov and other Behaviourists’ work on the importance of association in learning and the relationship between behaviour and its consequences. However, his work differed in the sense that he believed Connectionism accounted for a very small part of learned behaviour. Skinner believed not all human learning was automatic and unintentional but rather that people deliberately ‘operated’ in their environments to produce different kinds of consequences. He described these deliberate actions as “operants” (Woolfolk, 1998:208). In essence Skinner believed that it was not as important to identify the stimulus which started behaviour, as to inspect the consequences of the behaviour – if consequences were rewarding, behaviour would be maintained and be “increased in strength and perhaps frequency” (Brown, 1987:17). An underlying assumption of his work was that behaviour could be altered through the use of reinforcement and punishment (Tracey & Morrow, 2006:37).
2.2.1 Behaviourist perspective and reading instruction

During the Behaviourist period teaching was seen as a process of transmitting external knowledge to learners through “demonstration, reinforcement and controlled and sequenced practice” (McInerney, 2005:588). Behaviourism created a new perception of the task of reading as a complex act consisting of component parts (Tracey & Morrow, 2006:39). Reading was broken down into narrow skills which had to be learned through “reinforcement systems” (Gillen & Hall, 2003:4). The skills included visual and aural discrimination, sound-symbol relationships and word recognition. Little or no attention was given to teaching comprehension and reading instruction was strongly characterized by phonics instruction and basal readers (McLaughlin, 2007:84; Willis, 2008:190). The understanding of the reading process focused on decoding, and spelling, handwriting and writing were seen as separate skills. Reading instruction was broken down into separate lessons: phonics, flashcard drills, comprehension, supplementary reading, etc. (Turbill, 2002).

Lessons were broken down into “small, successive steps” designed to elicit the maximum success from learners and minimise failure as far as possible (Tracey & Morrow, 2006:38). The knowledge and experience that a learner brings to the reading situation was not acknowledged. As stated by Gillen & Hall (2003:4), Behaviourists saw no point in investigating or even considering what young children were thinking about, since the possibility of children having their own thoughts had been “defined out of existence until they arrived in school and faced a teacher”. Rather, Behaviourists believed that learning occurs by accumulating bits of knowledge, that learning is tightly sequenced and hierarchical, that testing should occur often to ensure mastery before moving to a subsequent objective and that motivation is external and based on positive reinforcement (Sheppard, 2000:5). It does, however, seem a bit of a contradiction to claim that learning is “sequenced and hierarchical” without explaining “unobserved learning”, namely any learning that takes place outside a structured environment or without instruction or supervision.

The Behaviourist period saw the emergence of standardised tests of comprehension (after silent reading of a passage) and a furthering of the reading readiness concept (see 2.5.1). Standardised comprehension tests usually asked multiple-choice format questions from which the reader had to choose the correct answer. On occasion the reader was required to make inferences and draw conclusions. Teachers at the time were not familiar with teaching silent reading and found that their students struggled
with standardised tests. As part of the solution to this problem, “remedial reading” was born (Robinson, Hittleman & Unruh, 1990:75) and with it the use of exercises and drills related to the skills assessed in the standardised tests and learning how to read instructions. Although researchers found that these drills and repetitive exercises made learners more “test wise” and therefore increased their scores, they were “uncertain whether it increased reading comprehension” (Robinson, Hittleman & Unruh, 1990:76). The lack of a focus on comprehension in reading instruction in general meant there was no clear definition of reading comprehension, which in turn resulted in tests which differed widely in what was measured and viewed as “reading comprehension” (Willis, 2008:195). Vocabulary, word attack skills, memory, problem solving and “gaining meaning from print” were all tested under the label of reading comprehension.

Some researchers, however, realised that reading, and more specifically reading comprehension, was about more than observable, measurable processes. Robinson (1954), in her article *What research says to the teacher of reading*, made a variety of observations that were well ahead of her time, such as the fact that comprehension began before school started and continued through school and well into a learner’s college years. She also observed that teachers should be “prepared to start where each student is in comprehension and direct his growth in harmony with his potentiality” and recommended the use of more informal assessment types (as opposed to standardized tests) to include “more complex comprehension skills” (Robinson, 1954:118). Robinson’s statements are echoed by Emergent Literacy researchers, and in particular Clay (see 2.5). Similarly, Willis (2008:195) points out that Rosenblatt argued in as early as 1938 for a “wider view of reading” that included a more active role of the reader whom she viewed as an “active, decision-making participant” whose “cognitive processing did not necessarily proceed in a linear fashion” and whose response to text was affected by various “affective, experiential and social influences”.

Other than an increased focus on standardised testing and the perpetuation of reading readiness, the Behaviourist period does not seem to have contributed much to the development of reading and reading comprehension. In fact, the Behaviourist approach can almost be viewed as an interruption of progress in thinking about the ‘internal’ processes of reading that had started to emerge during the late 19th century. The focus of Behaviourism remained instead on drills, learning rote steps and processes, decoding, word recognition, vocabulary and grammar. Reading and
writing were still regarded as separate processes and taught as separate entities. Reading and reading instruction was still very much a ‘technical’ process which focused on what could be observed. The reader was mostly regarded as a passive participant who was not expected to initiate interaction with a text. Meaning was seen to reside in the text and the reader was expected to reproduce that meaning (Dole et al., 1991:241). Olson (1977) described this view of texts as the text being autonomous: there was only one meaning in a text, namely that of the author, and it was up to the reader to find it. What was needed in reading was a return of a focus on the meaning-making processes of the reader, and the importance of constructing meaning from a text that allowed different reader interpretations.

### 2.2.2 A return to meaning making in reading

Throughout the pre-1900 perspective of reading and till the end of the Behaviourist perspective of reading, it can be said that reading was not yet viewed as a language process as such, but instead a rather straightforward perceptual process. Reading took place through translating printed symbols (text) into an “oral code” (Pearson & Stephens, 1998:78). Comprehension was regarded as little more than comprehension of speech. Not only was reading viewed to be a process that could be analysed and explained by studying observable phenomena (such as readers’ successful translation of sound and letter correspondences), but it was as if the text was regarded as superior to the reader in the reading process - the reader was expected to simply reproduce the text instead of construct meaning from it.

However, views held by researchers like Robinson and Rosenblatt (see 2.2.1) indicated a growing awareness that comprehension involved much more than a perceptual or linear process of reading, in other words, comprehension couldn’t simply be a case of “stringing together the meanings of adjacent words” (Pearson & Stephens, 1998:81) as claimed by Behaviourists. How else would a reader know that the words player and felt are related as subject and verb in a sentence where other clauses have been added: *The tired player, exhausted from running at his hardest all night and aware that his efforts had contributed to his team’s victory, felt that he had earned the applause.*

The focus in research started to turn to the nature of language and language acquisition. Pearson & Stephens (1998:81) point out that researchers, such as Chomsky (1965), came to two contrasting conclusions, namely that language is
“incredibly complex” and yet “acquired easily and naturally by children” in an environment where they are exposed to the language of their community without necessarily being taught anything. This view, that children (humans) possessed some special cognitive ability for inferring linguistic rules, sparked research into the study of the links between the linguistic features of language and the cognitive processes of the language learner.

2.3 A Cognitive perspective: reading for meaning

The Cognitive perspective, which includes influences from psycholinguistics and sociolinguistics (the latter influences will be discussed in 2.4), signalled a dramatic departure from the view of reading as a perceptual process. Psycholinguists were primarily concerned with the study of links between psychology and language (Gaffney & Anderson, 2000:58), and attempted to detail the regular, stage-like process of language learning. Because reading was increasingly being seen as an unobservable process educational psychologists began to focus on describing the underlying cognitive processes involved in reading (Tracey & Morrow, 2006:125). Cognitivists viewed the mind as “central to learning” (Graves, Juel & Graves, 1998:4), and regarded learners as active participants who act on rather than simply respond to their external environment during the reading process. Cognitive psychology included cognitive processing issues such as the transfer of learning, the role of prior knowledge, cognitive load, whole and part learning and mnemonics (McInerney, 2005:588), in other words, the cognitive view is interested in unobservable mental activities such as thinking, remembering and solving problems. It can be said that the cognitive view sought to describe external (visible) clues to the internal (invisible) processes of the mind.

The cognitive view of reading implies a beginning state, an end state and intervening transformations; in other words, the cognitive view of reading is that it is an “intrapersonal problem-solving task that takes place within the brain’s knowledge structures” (Bernhardt, 1991:6). Therefore, if there is a gap between the beginning and end states and a reader does not know how to bridge the gap, a problem arises. In the cognitive view the material to be understood as well as the process of understanding takes place inside the head. The result was the development of concepts such as Schema Theory (see 2.3.2) and Metacognition (see 2.3.3), as well as the development of various information-processing models which attempted to explain the reading process. I will deal with each of these next.
2.3.1 Information-processing models

The cognitive perspective initiated the development of a number of information-processing models which received "varying degrees of research support" (Sadoski, 2008:39) and were concerned with the processing, storage and retrieval of knowledge from the mind. Examples of information-processing models include descriptions of reading as top-down, bottom-up and integrated processes. The information-processing view of reading is predominantly a text-driven view which regards reading primarily as an individual act consisting of processing steps that are separate and measurable – the sum of the steps constitutes reading. Furthermore, since the information-processing view suggests that every reader "reads" in this way, the assumption is made that the output will be the same for every reader (Bernhardt, 1991:8).

The bottom-up models generally imply that reading is initiated at the ‘bottom’ level of text structure, namely at grapheme, morpheme and word level, and that in constructing meaning readers work their way ‘up’ to larger text structures such as phrases, sentences and paragraphs (Hedgcock & Ferris, 2009:17). Gough is a proponent of the bottom-up account of reading and believes that reading takes place "letter by letter, from left to right" (Gough, 1991:142). Gough is of the opinion that a reader should be able to find meaning irrespective of the context and its influences, and that the reader arrives at meaning through a process which starts with sound-symbol relationships, moves to vocabulary, then the rules of syntax before acquiring meaning. LaBerge and Samuels (1974) propose a refined bottom-up model which identifies memory as an important part of the reading process, and suggests that readers automate their reading skills by practicing specific processing skills (such as grapheme identification), which as they became more automatic, places less demand on working memory. Overall, according to the bottom-up process a set pattern is followed in a set order during the reading process and meaning is not derived until the print has been decoded (Cairney, 1990:17).

More recent research seems to confirm that that there is a link between memory, specifically working memory, and reading comprehension (Borella, Cornoldi & De Beni, 2009; Daneman & Carpenter, 1980; Baddeley et al., 1985). Skilled readers seem more able to use their working memory for constructing meaning during reading, compared to poor readers who use up much of their memory for basic skills
such as word recognition, text knowledge and syntax and are therefore less able to concentrate on finding the meaning in a text (Juel, Griffith & Gough, 1986).

Top-down views of reading contrast with bottom-up models by viewing readers as the initiators of the reading process; readers have expectations about the text and, while reading, check which expectations are correct and modify those that do not match the text information (Hedgcock & Ferris, 2009:23). Goodman (1967) describes reading as a “psycholinguistic guessing game” and suggests that the reading process starts with the search for meaning and that this directs everything else the reader does. Goodman found that readers who read words in a story context as opposed to unrelated word lists were able to read and understand more words, thereby implying that using context aided comprehension and word identification. Proponents of the top-down model emphasise that, given the wide range of literacy events that confront readers, human memory is not sufficient for the amount of information that must be processed, stored and retrieved according to the bottom-up model. Smith (2004) argues against the bottom-up models by stating that comprehension is gained from its context and that the “… meaning readers comprehend from text is always relative to what they already know and to what they want to know”. In other words, top-down models highlight the potential interaction of processes and participants, the acknowledgement of reader and text, rather than the sequential activation of processes.

However, as Hedgcock & Ferris (2009:27) state, the bottom-up and top-down view of reading “are not dichotomously related” and that an interactive view of reading allows one to draw from the strengths of both paradigms while keeping the multiplicity of practices, processes and participants in mind. Hedgcock & Ferris (2009:28) continue by stating that from a socio-cognitive, reader-based view, L2 reading involves five “indispensible” components, namely the literate context, the text, the reader (and his/her purpose for reading), text processing operations and the reader’s reconstructed message.

Graves, Juel & Graves (1998:11) discuss Rumelhart’s (1985) Interactive Model which emphasises that “both the reader and the text play a role in reading”. Rumelhart proposes the possibility of parallel processing, i.e. the simultaneous instead of linear processing from more than one source, which sees the reader draw simultaneously, but selectively, on a number of resources, such as visual, orthographic, semantic, syntactic and schematic information. Rumelhart’s model allows higher level
processing (such as comprehending the meaning of a sentence) to assist lower level processing (such as word identification). Davies (1995:66) regards the Interactive Model as important because it leaves room for reader differences (e.g. first language vs. second language readers) and lends support to the importance of beginner readers being sensitive to all sources of information rather than only one source, such as sound-letter correspondences. The latter point is emphasised by Emergent Literacy supporters who promote reading instruction which encourages readers to integrate different kinds of information and demonstrate alternative ways of using information.

A central component of the cognitive view of reading (as proposed by psycholinguists) is that readers rely on a cueing system to help them construct meaning from the text they are reading. The underlying assumption is that readers make predictions as they read about what the text will say based on their existing knowledge in these areas. In other words, the reading process is initiated with expectations about texts and the information represented by the texts; as they read, readers “sample information to determine which expectations [predictions] were accurate” and modify expectations that do not match the text content (Hedgcock & Ferris, 2009:23).

2.3.2 Schema Theory

Schema Theory (Anderson & Pearson, 1984) describes the structure of human knowledge as it is presented in memory (Pearson & Stephens, 1998:88). Schema Theory posits that people organise everything they experience into schemata or prior knowledge structures; Gee (1996:78) describes people’s individual attempts at making “meaningful distinctions” as a “cultural model based on certain beliefs and values”. Sternberg (2003:254) describes schemata as mental frameworks for representing knowledge about a variety of interrelated concepts in an organised and meaningful way. During the reading process each reader uses their own schemata to determine which of several interpretations of a text is most probable (Alvermann & Phelps, 1998:19).

An important characteristic of Schema Theory is that every individual’s schemata are different (Gee, 1996; Alvermann & Phelps, 1998:18, Graves, Juel & Graves, 1998:4, Tracey & Morrow, 2006:51). To illustrate, in the sentence “After completing another successful over he resumed his position at long off” all individual words should be
familiar but do not necessarily form a meaningful sentence until clues such as ‘sports’ or ‘cricket’ are provided. Pearson and Anderson (1984) contended that readers not only have schemata for content (places, people and things) but that readers also have schemata for reading processes (decoding, skimming, summarising, etc.) and for different types of text (narrative, expository texts). Tracey & Morrow (2006:52) contend that differences in these “reading” schemata in different readers are the result of differences in reading comprehension. Therefore, a child who has an elaborate schema for tennis will comprehend a text on that topic differently than a child who has little or no knowledge of the sport. Similarly, a reader’s level of development of schemata about text structures will also influence their reading comprehension.

Schema Theory proposes that without an existing schema learning new information about that specific schema is difficult, and that schemata are flexible and expandable. Schema Theory implies that some part of communication must be familiar in order to create a link with and expand existing schema. This brings to mind Sperber and Wilson’s Relevance Theory (see 2.1.2.3) which states that information in communication must be relevant to allow us to alter our existing assumptions. McNeil (1987:6) identifies certain functions of schemata, for example: (1) they assist in assimilating additional information (if a schema for dessert exists, it is easy to add the new instance ice cream sundae), (2) they permit inferential elaboration (with a sports schema a reader can differentiate between the size of the balls in The golfer hit the ball and The batter hit the ball), (3) they assist in helping the reader separate important from less important ideas (in summarising a text, readers with a schema for fables will give the moral more weight than any specific character, action or event) and (4) they aid in memory in the sense that a reader’s interpretation of what is read is stored in memory and it is the interpretation that will be recalled in a future event.

Schema Theory has implications for the choice of texts in teaching reading, because it encourages the examination of texts from the perspective of the reader’s knowledge and cultural background and evaluates the “likely connections” they would make between ideas in the text and their existing schemata (Pearson & Stephens, 1998:89). The choice of reading text is of great importance in the multilingual and multicultural South African education context. Garcia (2000:821) showed that bilingual learners “significantly differed in their background knowledge” for standardised reading test passages in English; where differences in prior knowledge
were controlled there was no significant difference. Since a large portion of South African learners whose L1 is not English receive instruction in English, the issue of schemata becomes an important one.

2.3.3 Metacognition

Metacognition is the process of thinking about one’s own thinking (Koda, 2004:211; Tracey & Morrow, 2006:61; McLaughlin, 2007:91). The concept of metacognition is attributed to work by Flavell (1979) and Brown (1987), who studied the development of children’s ability to be aware of and control their cognitive processes (Gaffney & Anderson, 2000:58). Griffith & Ruan (2005:4) define metacognition as an “awareness and judgement about an event gained through experience”. Effectively metacognition represents readers’ cognitive monitoring of their comprehension and the automatic control of meaning construction between reader, text and experience (Israel, 2008:191).

Durkin’s (1978-1979) seminal research about the state of reading instruction in classrooms sparked an interest in metacognition and research started focusing on promoting learners’ ability to comprehend texts independently. In other words, research focussed on learners’ ability to be aware of when they do not comprehend what they read (comprehension monitoring) and knowing (having ways) of consciously addressing their comprehension problems. Research (Pressley & Harris, 1990; Baker, 2008) has found that good readers use a number of metacognitive strategies (such as re-reading, slowing down, looking up a word, summarising, etc.) during reading to assist in understanding the text. Good readers are aware of whether they comprehended the text, and when they sense that comprehension is not taking place, use different strategies to rectify the situation. Research (Pressley, 2001) also shows that poor readers, on the other hand, do not employ strategies automatically. The goal of metacognitive instruction is to help readers become more aware of their thinking during the reading process (Israel, 2008:191; Tracey & Morrow, 2006:62). In terms of reading strategies (with reference to this study) this would refer to the ability to not only recognise when what is being read makes sense, but also being able to employ a fix-up strategy.

Reading specialists tend to concur that comprehension monitoring is the decisive metacognitive capability which distinguishes good from poor readers (Koda, 2004:212), and researchers view comprehension monitoring as an important
component of metacognition which “can be taught, and ... can improve comprehension” (Baker, 2008:65). Snow (2002a:32) recommends teaching learners a “repertoire of strategies that promote comprehension monitoring” – in other words, not only should learners be taught to monitor their comprehension, they must also be given sufficient strategies to support and develop their comprehension-monitoring skills. Monitoring as reading strategy has been research-proven as one of nine strategies that have been “highly successful since 2000” (Block & Duffy, 2008:22), and is the reading strategy most often associated with metacognition. Monitoring, therefore, forms part of the strategies used in the research intervention for this study.

A ‘new development’ in cognitive theory is embodied cognition (Sadoski, 2008:39-40). In essence, embodied cognition contends that cognitive processes are based in the physical body’s interactions with the world. Bourdieu (1990:77) states that a person’s cognitive structures are founded in the ‘habitus’, “a system of [socially] acquired dispositions to a certain practice”. Consider the question “If your brain has never been outside your head, how does it know what the world is like?” Possible answers could be that (1) knowledge is innate (i.e. linked to schemata and therefore relatively fixed and abstract), or (2) that it is derived from our experiences through the five senses. Embodied cognition states that knowledge is linked to our senses, and therefore “flexible, contextually changing networks of mental representations” (p.40) and not merely a set of “prior knowledge” or schema. In other words, all knowledge consists of two parts: the abstract part (schema) and the sensory part (embodied knowledge). Embodied cognition promotes the use of imagery in improving comprehension in order to link mental images (sensory information) to prior knowledge (schema). Imagery (also called Mental Imagery) is a successful research-proven strategy (Pressley, 1990; Pressley & Wharton-McDonald, 1997; Block & Duffy, 2008) and often recommended for improving reading comprehension skills.

It is worth noting that the so-called ‘new’ focus on the importance of sensory information in embodied cognition is not an entirely new concept. Sensory memory formed an important part of Atkinson & Shiffrin’s (1968) Information Processing Model. While one could debate the difference between ‘sensory memory’ and ‘sensory knowledge’ it is clear that prior knowledge and the context in which this knowledge is formed (i.e. the variety of sensory experiences of each learner) remain important factors in developing reading comprehension.
2.3.4 Constructivism

The Constructivist view developed from Cognitive processing views of reading, and emphasises the active construction of meaning by the learner (Dole et al., 1991:251; McInerney, 2005:592,). Constructivists oppose the view that knowledge is fixed; instead a constructivist view of reading contends that learners bring different knowledge to the learning process and that all types of knowledge are equally valid and can be passed on from teacher to learner. The Constructivist view is that learning occurs when new knowledge is integrated with a learner’s existing knowledge, and that this integration of new knowledge is only possible when the learner is actively involved in the learning process. Reading is seen as a “social process of active, engaged readers” (McLaughlin, 2007:90).

In addition to emphasising the active nature of reading, Constructivists believe that the meaning constructed from a text is subjective and the result of each particular reader’s processing of the text; all readers are influenced by the sum of their individual experiences and their unique individual intellectual makeup. Therefore, it is possible, if not probable, that all readers construct a slightly different interpretation of the same text (Graves, Juel & Graves, 1998:9). Dole et al. (1991:255) describe this individual construction of meaning as constructing a meaning that represents “to some degree the meaning intended by the writer”. Perhaps the most important result of the constructivist perspective is that it caused ambiguity about the question of where meaning resides (Pearson, 2009:14) - in the text, in the author’s mind, in each individual reader’s mind, in the interaction between reader and text, or elsewhere? The use of reading strategies (as proposed in this study) enables learners to construct their own meaning from texts; however, the individual construction of meaning implies that teachers are aware of and accept multiple meanings, and do not, for example, expect one answer to questions that require interpretation of meaning.

2.3.5 The Cognitive perspective and reading instruction

The Cognitive perspective has had considerable influence on the teaching of reading and views of how children learn to read. It has helped educators and researchers appreciate the reader’s efforts and shows that errors can be used as indicators of a reader’s thoughts, rather than viewed as something to be corrected. Goodman’s (1965) Three Cueing Systems of the Reading Process forces teachers to change their
thinking since reading is regarded as a process where children continue to learn to read long after the Foundation Phase. This realisation has implications for the teaching of reading - in effect it implies that all teachers have to be teachers of reading (see 3.6). Miscues in reading are accepted as long as they maintain the meaning of the text. In fact, miscues are seen as an important factor in providing insight into how learners process print and assist in diagnosing reading problems (Turbill, 2002).

The Cognitive era brought a strong focus on research into comprehension strategies by a multitude of researchers (e.g. Palincsar & Brown, 1984; Pressley & Harris, 1990; Pressley, 2001, 2005; Snow 2002a and Williams; 2008) which showed that researcher-developed instruction in reading strategies could benefit students. The Cognitive perspective acknowledges that readers bring meaning to print in order to derive meaning from print (Turbill, 2002). According to Snow (2002a: xiii-xiv) the reader brings cognitive capabilities such as attention, memory, critical analytic ability. Cartwright (2008:50) includes cognitive flexibility in the skills that a reader brings to the process, and describes reading comprehension as the “complex orchestration of multiple cognitive variables … while employing strategic and metacognitive processes”. Daneman (1996:513) describes reading in a similar fashion as the “coordinated execution of a collection of oculomotor, perceptual and comprehension processes”.

In the Cognitive perspective reading is viewed as language, instead of perception, and importantly, reading is viewed as a constructive process (Pearson & Stephens, 1998:86) in which a reader makes sense of what is encountered in the text based on what he already knows. Reading comprehension is viewed more as “reader based”; the text is no longer the defining standard for comprehension but instead becomes one of several factors that influence comprehension, such as prior knowledge, strategies, task and situation (McLaughlin, 2007:90). Views of comprehension further emphasise the interactive nature of reading and the constructive nature of comprehension (Dole et al., 1991:241). Furthermore, the importance of using context to finding meaning is acknowledged. However, it should be pointed out that theories on how a reader arrives at meaning, irrespective of whether it is the author’s intended meaning or not, differ widely amongst constructivist researchers, and further, that the reference to the “use of context” usually refers to the context of the text – using clues from within the text to infer meaning. The idea of context as the
environment (a reader’s social and cultural background) is not acknowledged (see 2.4).

Smith’s book *Understanding Reading* (1971) laid the foundation for the whole language approach to reading instruction which suggests that reading, like oral language, is a “natural process that children will acquire if immersed in literacy environments and exposed to meaningful, authentic literacy experiences and high-quality literature” (Tracey & Morrow, 2006:59). Street & Lefstein (2008:73) describe whole language as an emphasis on “teaching language in context and teaching texts in their entirety” and a resistance to “the isolation of phonetic decoding from larger units of meaning”. Whole-language theorists further contend that listening, speaking, reading and writing are interconnected and improvement in any single area will lead to improvement in the other areas.

The Cognitive perspective sparked the start of the Behaviourist ‘phonics and decoding first’ versus Constructivist/Cognitive ‘reading for meaning’ debate which still persists today. The debate still often results in two distinct approaches to teaching reading in schools (Davies, 1995), and it could be argued that it tends to mislead educators into dividing reading into one of two categories: either Whole Language (Goodman, 1967) or either ‘phonics’ (skills). An example of how reading strategies were ‘simplified’ into fitting into a Behaviourist-type ‘skills’ category was when researchers reported a decline in interest in comprehension instruction and a lack of comprehension strategy instruction during the 1990s. One of the reasons cited was the “lack of focus on skills and strategies due to influence of the whole-language approach” (McLaughlin, 2007:93). Perhaps the most important lesson to be taken from the whole-language approach is not that it de-emphasises phonics-based instruction, but that it emphasises the use of “continuous, coherent texts” (Clay, 1991). However, this implies ready access to quality literature in schools, which unfortunately is not always a reality in South African schools.

In summary, while the Cognitive perspective signalled an important shift in focus to readers’ cognitive processes, developments continued to focus more on structural rather than content characteristics of text (Pearson & Stephens, 1998:87). Furthermore, it is almost as if the cognitive view treats reading as a ‘sealed area’; in other words, while interaction between reader and text is acknowledged, interaction between the reader and the influence of culture, society and language - which in turn affects the interaction between the reader and the text - is not yet completely
acknowledged. In a sense, the Cognitive perspective still views reading as an almost autonomous part of the schooling process, which usually includes mostly Western middle-class learners who, it could be argued, have similar exposure to reading (literacy events) and therefore bring similar experiences to the reading process. When viewed from a multilingual and multicultural teaching context, what needs to be acknowledged is the effect of social and cultural factors on the reading process. This acknowledgement is brought about by the social learning perspective.

2.4 A Social perspective: reading in social context

Social Learning, also known as Social-Cognitive theory, is largely identified with Bandura (1977) and incorporates various different theories, each with an emphasis on the central role of social interaction in the development of knowledge and learning. The social learning theory is sometimes regarded as the “logical marriage between cognitive and behavioural approaches” (McInerney, 2005:588). When applied to the field of reading, the social learning perspective emphasises the importance of social influences and social interaction on literacy learning (Tracey & Morrow, 2006:100). Sociolinguists view reading as both a linguistic and social process, and as essentially a study of the “social uses of language” (Chambers, 2003:2).

The social view of reading is rooted in the belief that texts are “manifestations of cultures” which imply socially acquired frames of reference (schemata) and value systems and, therefore, causes texts to become “fluid and open to multiple interpretations” (Bernhardt, 1991:9-10). This ‘cultural’ view of texts implies that no text is generic or generalised, in other words, there are multiple texts within a text, each linked to different value systems. From a social perspective then, input text and output text are not the same because each reader reacts differently to a text.

Sociolinguists further believe that oral language plays an important part in the development of reading and writing skills. Studies, such as those by Hart & Risley (2003), have shown that oral language forms the foundation for vocabulary learning which in turn assists in reading comprehension once learners start to read. They further state (2003:5) that “almost everything [children] learn comes from their families” and that “ordinary families differ immensely in the amount of experience with language and interaction they regularly provide their children”. Hart & Risley (2003) further show that learners’ literacy development is directly influenced by the
parents’ work status and that a correlation exists between vocabulary growth of children in professional, working class and welfare-dependent homes; the higher the work status, the more developed the children’s vocabulary.

2.4.1 The role of text and context

Bloome & Green (1984:395) state that as a social process reading is used to “establish, structure and maintain social relationships between and among people” and that as a linguistic process reading is used “to communicate intentions and meanings, not only between an author and a reader, but also between people involved in a reading event”. The social perspective of reading expands the interpretation of the word context to include not only what is on the page (inherent in the text). As described in 2.3, the Cognitive perspective to some degree views the aim of reading as finding and constructing meaning from text (Graves, Juel & Graves, 1998:2; Snow, 2002a:13; Williams, 2008:171). The Social perspective brings a further aspect to this view, namely that the reader’s social context shapes his knowledge, skills and experience, and could lead to the construction of multiple meanings as opposed to a single, author-driven meaning (Cairney, 1990:15; Chapman, 2006:115). It can be said that in the Social perspective the reader is finally acknowledged as the most important part of the reading process and reading is no longer predominantly text driven. Snow (2002a:16) states that the context no longer merely involves the classroom, but also “what children bring to the classroom”.

The social perspective, therefore, not only acknowledges the linguistic aspects of interactions but includes the broader concept of culture and emphasises the “social, cultural and historical factors in the human experience” in the context of reading (Tracey & Morrow, 2006:104). Reading, according to a social perspective, always occurs in a context which in turn is shaped by the literacy event at the same time as it shapes the event (Pearson & Stephens, 1998:91). It is almost as if by acknowledging the social context of the reader and the reading process that reading becomes a contributor to literacy in general, rather than simply being part of reading literacy in particular.
2.4.2 The Social perspective and reading instruction

Street (1984, 1993) warns educators and researchers not to take an autonomous view of reading. He maintains that, although reading is a social activity, attitudes towards and uses of text vary considerably from one society or community to another, and that the meaning of a text as well as the importance of being able to read it, depends on the social context in which it is used and the ways in which particular communities are accustomed to using it. Street (1984:2) describes the autonomous view as a view that considers literacy a “neutral technology” which develops in a single direction and is associated “with ‘progress’, ‘civilisation’, individual liberty and social mobility”. In other words, education is viewed as a “one size fits all” approach which generally disregards social context and attempts to turn all learners into speakers and users of “standard” English. However, when literacy is viewed as an ideological model (Street, 1984) it is not regarded as a universal, single trait but seen as a “lifelong context-bound set of practices in which an individual’s needs vary with time and place” (Street, 1993). In other words, what is regarded as “literate” in one context may not be the same in another context, or it could mean that the need for a specific type of literacy can change or be temporary.

Language variety can be considered an example of a difference in language styles; one of the important changes brought about by sociolinguistic studies is the view that varieties (specifically with reference to English) are not half-formed variations of standard English, but rather that each variety constitutes a well-developed linguistic system in its own right. While various recognised varieties of English exist (e.g. American English, British English, Australian English), Coetzee-Van Rooy & Van Rooy (2005:4-5) warn that assigning a label to a language variety in the first place, particularly in terms of South African varieties of English, can be problematic and should not be attempted lightly. Pearson & Stephens (1998:90) point out that speakers of dialects should be regarded as expressing “linguistic differences, not linguistic deficits”. The argument seems to be that the goal of schooling should, therefore, not be to turn every speaker into a speaker of ‘standard’ English, but rather to rethink perceptions of language and behaviour. What one group regards as ‘the right pronunciation’ could in fact simply reflect ‘their pronunciation’ – the question could well be asked: is there such a thing as a ‘correct’ pronunciation of English, and if so, which pronunciation would it be, and why?
Bernstein (1960) challenges views of literacy development which are based on rich home literacy environments with regular parent-child literacy interaction; according to him, these views represent a one-sided approach to literacy which favours the typical middle-class home environment where regular parent-child interaction is made possible by a non-working mother who is able to devote most of her time to educating her children. Bernstein’s work examines the relationships between social class, family and the role of the school. He claims that “linguistic differences, other than dialect, occur in the normal social environment and status groups may be distinguished by their forms of speech” (Bernstein, 1960:271). He further contends that schools typically assume the communication mode of the middle class, which means that working-class learners are disadvantaged by the code of schooling, and not because their language is deficient. McCarthy (2000:151) makes the point that in low-income communities it is often the type and amount of materials and the time spent by parents and children in literacy activities that influence learners’ success at school. Middle-class children are more likely to recognise what is required from them in a school context because pedagogic interactions are closer to the parent-child styles of middle-class than working-class families (Ivinson & Duveen, 2006:1109). Sadovnik (1995:7) is of the opinion that Bernstein’s work raised “crucial questions about the relationships among the social division of labour, the family, and the school, and explored how these relationships affected differences in learning among the social classes”.

It seems, therefore, that any given society can view different types of literacy as important and no single society can realistically label another society ‘illiterate’ based on their own concept of literacy. As Barton (2007:49) states, “notions of ‘incomplete literacy’ or ‘restricted literacy’ do not make sense”. In fact, Willis (2008:38) points out that as early as 1881, Douglass noted the fact that slaves in America, while not scholastically literate, were “adept at reading their circumstances; that is, they knew and understood how to interpret the signs and symbols of their world”. Vygotsky’s (1933) work underscores Douglass’s observation; Vygotsky believes that children learn through social interaction with others, and that a child’s development depends on the “sign systems” with which they grow up (McInerney, 2005:591). These ‘sign systems’ include a culture’s language, writing and counting system.

The reality, however, is that the view of literacy and resulting education practices (including the teaching of reading) in any given education system are usually “related to specific cultural contexts associated with relations of power and ideology”
(Verhoeven & Durgunoglu, 1998:ix). Street (1984:1) confirms this view by stating that “what the concept of reading and writing are for a given society depends on the context; that they are already embedded in an ideology and cannot be isolated ...” In other words, not only are readers considered to be influenced by experiences and knowledge from the community or society in which they live, but they are also influenced by the community or society’s beliefs about reading. This is bound to have a considerable impact on teaching reading. In this regard the value of reading strategies must be emphasised, because reading strategies enable the construction of meaning from a text without dictating a specific meaning to the reader.

One of the most important aspects of the social learning perspective on teaching reading is that it has sensitised teachers to language as a social and therefore cultural construction. The social perspective helps teachers to understand the role of language in school settings, and shows that success in reading is “not so much an indication of ability per se, but of the success the individual experiences in learning how to use language appropriately in educational settings” – in other words, how well the individual learns to “do school” (Pearson & Stephens, 1998:92). Au (1997:184) writes that “school literacy is seen as a social process, affected not only by present but [also by] historical circumstances” and that “when children learn to read, or fail to learn to read, they do so in a particular social, cultural and historical environment. Their success or failure in reading cannot be understood apart from that environment”. Teachers now know that instead of imposing a “single standard on all”, they should attempt to “locate classroom practice within broader social and political contexts” and attempt to be “more sensitive to the variety of backgrounds and language styles that learners bring with them” (Street & Lefstein, 2008:62).

A further realisation in education caused by the social learning perspective was that the child begins the process of developing literacy long before coming to school (see 2.5). Teachers should, therefore, be aware that learners may have had differing exposure to print when forming an opinion of individual learners’ ability to read. The fact that some learners may not have had exposure to print before entering school does not necessarily mean they should be branded as ‘poor readers’ or of weak intellect. Bernhardt (1991:11) reminds educators that while a mismatch between the home and school environment may affect the rate of literacy acquisition, the slower rate must not be branded a cognitive deficit, but rather a social mismatch.
Social learning further highlights the fact that mainstream classrooms are not necessarily designed to allow marginalised learners or learners whose home language is not the same as the LoLT to demonstrate their knowledge, i.e. the knowledge that is central to their home environment and not necessarily to the general classroom environment. It is, therefore, important for teachers to understand “the culture bases of different childrearing practices” and that parents’ practices may reflect their “explicit or implicit beliefs about child development” (Sonnenschein, Brody & Munsterman, 1996:18). McCarthey (2000:151) states that it is a myth that children from low-income backgrounds are not exposed to literacy materials or that their parents are not concerned with education; rather it is more often the type and amount of materials and time spent by the parents and children in literacy activities that affect the child’s success at school. The challenge, therefore, is for school literacy practices to be adjusted to accommodate home and community patterns (McCarthey, 2000:148).

Knowledge of the social aspect of language learning is especially important in South Africa in view of the diversity of linguistic and cultural backgrounds that can often be found in a single class. Teachers of multilingual and multicultural classes, therefore, need to be aware of the impact of social, cultural and historical factors on learners and the knowledge and attitudes they bring to the learning situation – not only to be able to handle differences between learners, but also to select the appropriate methodology and material for teaching and evaluating reading successfully.

2.5 An Early Literacy perspective: reading as literacy development

In the preceding sections (see 2.1 – 2.4) the perspectives of reading were concerned primarily with observable behaviour and cognitive processes. The perspectives discussed the belief that learners can be conditioned to change their behaviour (Behaviourism), how a learner’s mind and memory works and which observable and non-observable cognitive steps occur during the reading process (Cognitive Perspective) and how a learner’s social, cultural and historical background influences the reading process (Social Perspective). The Literacy Development theorists, however, are concerned with the reading process from a slightly different angle, namely understanding children’s early literacy development. In other words, they are not so much concerned with the processes and social context of reading than the development of literacy and the steps through which children move in their development, as will be described in this section.
Early Literacy is concerned with questions such as “How does early literacy develop?”, “How can early reading development be facilitated?” and “What are some symptoms of developmental problems in early reading ability?” (Tracey & Morrow, 2006:76). Various theories of development are attributed to the Early Literacy perspective, many of which were developed quite recently (1980s) and continue to dominate literacy instruction today. These theories include the Theory of Literacy Development (Holdaway, 1979) and the concept of Emergent Literacy by Clay (1966).

Holdaway’s theory of Literacy Development views learning to read as a natural developmental occurrence which begins at home when children see their parents read or have stories read to them. In Holdaway’s theory parents are the models for children, and children strive to do what they observe their parents doing. Holdaway believes that a child will gradually attempt to read if the process were mediated by an adult who interacts with the child in a problem-solving situation (Morrow & Gambrell, 2000:569). These attempts would increase as the child’s reading skills grew (usually after trying out alone without adult supervision what has been learned) and the child began to read for real. In effect, Holdaway believes that the development of reading is natural and almost a copy of a child’s natural development of oral language skills (Tracey & Morrow, 2006:81). Holdaway promotes specific characteristics of literacy instruction to support his theory of natural literacy development. These characteristics mimic a rich home literacy environment with regular parent-child interaction during which children have the opportunity to “regulate their own learning by questioning adults” (Morrow & Gambrell, 2000:571).

The term emergent literacy refers to the period between the birth of a child and when the child can read and write at a conventional (usually third-grade) level (McLaughlin, 2007). Emergent Literacy explains early literacy development, provides instructional guidance for early literacy growth and promotes the “integration of language and literacy learning” (Wilkinson & Silliman, 2000:347). Emergent Literacy contends that literacy development begins “long before children start formal instruction” (Neuman & Dickenson, 2003:3) and is an ongoing, continuous process. This is in direct contrast with other theories of early literacy development, such as the Stage Models, which believe in delaying literacy growth until a child can focus on word identification, and Maturation Theory (proponents include Morphett & Washburne, 1931; Gesell, 1946) which is based on the premise that children should not be exposed to literacy learning until they have reached the age of 6 years and 6 months. By contrast, Emergent Literacy theorists believe listening, speaking, reading and writing skills are
related and begin at birth and that a child’s home environment has a great impact on the development of these abilities. Clay (1991:19) asserts that “school entry is not the beginning of development or of education in its broadest sense, but is the beginning of society’s formal attempts to instruct all children ... in skills that are considered important”. What is important about the term emergent literacy is the fact that it refers to a functional level of performance rather than to a chronological age (Tracey & Morrow, 2006:85). This means a good reader may become a conventional reader (able to read at Grade 3 level) long before reaching Third Grade. Similarly, a poor reader may remain in the emergent phase of development long after Grade 3 and even for the rest of his/her life.

2.5.1 Reading readiness vs. emerging into literacy

The term reading readiness has many definitions but generally implies that children become ready for formal reading instruction at different times due to different rates of maturing. The reading-readiness view means children were viewed as unable to read or understand what it means to read or write until they reached Grade 1 in school (Mason & Allen, 1986:4). This concept of ‘readiness’ was based on various views: the Behaviourist view of reading as isolated skills that could be taught hierarchically, the Maturationist view that readers became ‘ready’ to read at a specific age and after developing prerequisite skills that could be evaluated by readiness testing, and the Connectionist view (Adams, 1990) which believed literacy knowledge (which includes reading) is built on a sequence of skills and experiences. Use of the term reading readiness has led to a situation where Grade 1 teachers expect all children to be ready for reading instruction at a certain point and at the same time, or risk being deemed “not ready” for reading.

Emerging literacy differs from the traditional view of ‘readiness’ by asserting that school programmes must adapt to the learner’s level of readiness, and each learner must start their development from their individual levels of readiness. Emergent literacy states that reading “is not a matter of readiness, but is integrated with and naturally embedded in ... routine social interactions with literate adults ... from infancy onwards” (Wilkinson & Silliman, 2000:347). One of the central beliefs of Emergent Literacy is that a child’s development in the language areas of listening, speaking, reading and writing is interrelated, much like the social learning theory contends that factors such as socio-economic status, language and culture are “intertwined” in their impact on children’s literacy development (Goldenburg, 2003:214). The
interrelatedness of language components of the emergent literacy theory implies that children who are proficient with listening and speaking tend to do well at early reading and writing, and children who have difficulty with listening and speaking tend to be more at risk for reading difficulty. The belief that areas of literacy are interrelated implies that positive growth in one area “will positively affect the other areas of development” (Tracey & Morrow, 2006:85). Emergent Literacy theorists believe that all children go through a period of “emergent literacy” during which they become increasingly aware of the relationship between spoken and written language, and that it is this awareness which helps young learners in their early attempts at reading and writing.

2.5.2 A critical view of emergent literacy

Research has shown so-called “literacy-rich home environments” tend to result in children with stronger literacy skills (Hart & Risley, 2003). Emergent Literacy emphasises the finding that even though many factors are important for ensuring children’s reading success (such as parents’ education, occupation and socioeconomic level) the quality of the literacy environment is the most important factor which determines a child’s early literacy ability and exposure to literacy events. The ways children learn about language and books are “deeply embedded in family communication patterns” (Mason & Allen, 1986:8). However, not all children are exposed to the same number and type of literacy events, which often means children from low-SES communities have not always been exposed to literacy or numeracy events generally associated with schooled literacy, and, as a result, are often branded as ‘poor readers/learners’ once they enter school. Street & Street (1995:110) point out that much of what is viewed to be so-called schooled literacy is a product of “western assumptions about schooling, power and knowledge, rather than being intrinsic to literacy itself”.

While emerging literacy asserts that school programmes must adapt to the learner’s level of readiness, and each learner must start their development from their individual levels of readiness, the association of emergent literacy with schooled literacy creates a contradiction. Because schooled literacy is usually determined by Western, middle-class society and focuses on making learners ‘functional’ in a school environment, it puts learners who do not come from middle-class, privileged homes at an immediate disadvantage because a discrepancy exists between their home and school literacy events and environments. Effectively this leads to a deficit view of
learning and literacy. As Giroux states (1987:4) viewing literacy purely as schooled literacy turns it into a “form of privileged cultural capital” which seeks to “benefit middle-class over working-class and minority students”. Freire & Macedo (1987:35) state that “reading the world always precedes reading the word, and reading the word implies continually reading the world”, thereby implying that schooled literacy (‘reading the word’) is not the only ‘standard’ for literacy. If emergent literacy continues to be vested in the similarity between home and school environments (a link that serves to benefit middle-class learners), one solution would be to strengthen home-school relationships in working-class communities in an effort to close the gap.

2.5.3 Early Literacy Development and reading instruction

One of the main Early Literacy Development contributions to reading instruction is an understanding of how learners differ in their pre-school literacy development, and how to understand learners’ thinking at these different stages. Tracey and Morrow (2006:90) describe three phases of development which can be related to current development phases as follows: reading in the Foundation Phase is bound to be affected by reading experiences at home and in-class reading. During the Intermediate Phase learners start to learn how to use language in abstract ways, and will benefit from activities that help them organise their thoughts related to comprehension and writing (a good reason for introducing reading strategies during this phase), and during the post Intermediate Phase, identified as the ages 11 to adult stage, learners are able to use language in abstract ways and will benefit from advanced reading strategies and metacognitive use of strategies.

Shared Reading, originally introduced in Holdaway’s Foundations of Literacy as “shared book experience” (Holdaway, 1979:64), has shown its impact on reading instruction in the development of Big Books (high quality children’s books printed in a greatly enlarged format) for use during shared reading. Paratone and McCormack (2005:50) describe Shared Reading as a “context for reading and re-reading literature that is engaging and age appropriate” which “allows teachers to help all learners gain access to the same text” – a process during which teachers provide “guided practice in behaviours in which good readers engage before, during and after reading”. Before reading the teacher introduces the book and can ask for predictions about what the story may entail and build on learners’ background knowledge related to the content. During reading the teacher may ask learners to predict what they think comes next. During post-reading the teacher could ask questions at various
levels to promote critical thinking and provide follow-up activities for responding to the story.

Other instructional practices associated with Emergent Literacy theory are that of ongoing assessment of learners’ literacy growth, the use of high-quality children’s literature as a teaching tool, instructional approaches that promote social interaction between learners and the use of literacy centres in the classroom as an important component of literacy instruction (Tracey & Morrow, 2006:94). An important reading methodology, based on the ongoing assessment of readers and the early detection of problems with reading, is the Reading Recovery Programme. Reading Recovery, as developed by Clay in the 1970s, is an early-intervention literacy programme designed to accelerate the most-at-risk readers and writers from within the regular school population to the average performance level of their peers within a short space of time. Reading Recovery is a one-on-one programme between teacher and pupil which lasts on average 12 – 15 weeks, with the intention that the learner “develops effective strategies for working on text” (Clay, 1993a:15). This programme has been implemented throughout New Zealand and the United States since 1984, and more recently also in Australia, Canada and England. Clearinghouse, a branch of the US Department of Education and the Institute of Education Sciences released a three-year independent review of the experimental research on Reading Recovery in March 2007 which clearly establishes that Reading Recovery is an effective intervention based on scientific evidence.

Clay (1993a:4) contends that as far as regular, individual testing of learners goes, it is “not necessary to test every child” to determine whether a school system is producing satisfactory results; the use of sample testing is sufficient. Clay states that although standardised tests are a good measure of group behaviour, “individual observation and testing of learners provides a better measure” for indicating how reading instruction should be adjusted for optimal results. She further recommends that testing is done on standard tasks and that a wide range of observations be used to ensure that the teacher’s beliefs of reading and writing “do not obscure the observation results” (1993a:7). For example, using a word test in isolation would provide a skewed result because it tests only one aspect or reading behaviour. Reading Recovery concentrates mainly on early phase learners and on learners with reading difficulties, whereas this study will concentrate on the effect of direct instruction of reading strategies on learners’ reading comprehension. In other words,
it is assumed the learners are able to read and do not have any fundamental reading problems.

This concludes the discussion on the perspectives on reading and reading comprehension. The following two sections (2.6 & 2.7) will take a short look at two issues related to reading comprehension instruction in South Africa, namely multilingualism (reading in a second language) and the connection between reading and writing. While this study is not about multilingual education per se, it has been performed in a multilingual environment and consistently refers to issues related to multilingual teaching environments (e.g. 3.5.1). Therefore some discussion about reading in a second language is warranted; it will, however, not be lengthy and serve merely to raise awareness of the how learning/reading in a second language can add to the complexity of teaching.

Similarly, since the importance of the connections between reading and writing were identified in the preceding sections, a short discussion of the link between writing and comprehension will follow. It must, however, be emphasized that the link between reading and writing is a unique and individual field of research. While this study recognises the importance of the link between reading comprehension and writing and incorporates writing in the proposed framework for reading strategy instruction as a natural end result of certain reading strategies, writing instruction is not the main focus of this study.

2.6 Reading in a second language

Reading is a complex cognitive process involving a number of processes which each require diverse sub-skills for successful execution (Koda & Zehler, 2008:5). If this is true for a reader’s first language, then it is fair to assume that the complexity of reading increases exponentially when two, or more, languages are involved. Reading is a process that is embedded in both the language system and the writing system and depends on language in a fundamental way – when printed words are encountered, the reader understands their meaning in the context of the language, not as signs that have independent meaning (Koda, 2004:14). Knowledge of a language implies a considerable amount of metalinguistic knowledge (Koda & Zehler, 2008:97): phonological awareness, morphological awareness, syntactic awareness, grapho-phonological awareness and grapho-morphological awareness to name a few. However, the metalinguistic knowledge required in the L1 may differ vastly in the L2.
Second-language reading research seems to place considerable emphasis on a reader’s L1 framework, and the effect of the reader’s knowledge of the L1 on learning to read an L2. This is referred to as the linguistic interdependence theory (Chamot & O’Malley (1996:261) or cross-linguistic transfer (Koda, 2004; Koda & Zehler, 2008) where readers transfer what they know about reading in one language to reading in another language. However, not all researchers agree that the direction of influence always flows from L1 to L2. Lenters (2005:330) emphasises that research does not necessarily imply a critical order in the transfer between L1 and L2 literacy skills. In fact, Clay (1991:2) claims that transfer can occur in both directions, whereas Kesckes (2000) takes a stronger view by claiming that the L2 does influence the L1 (home language).

Cummins (1979:229) developed the “linguistic threshold hypothesis”, and although he warns that it should not be considered absolute, his linguistic threshold hypothesis assumes “that those aspects of bilingualism which might positively influence cognitive growth are unlikely to come into effect until the child has attained a certain minimum or threshold level of competence in a second language”. In terms of L2 reading this implies that L2 readers must “first reach a ‘threshold’ level of general L2 knowledge and skill before they can be expected to make substantial progress as L2 readers” (Grabe, 2009:146; Hedgcock & Ferris, 2009:34). Bernhardt (2005), after reviewing a number of threshold studies involving a range of L1 groups, second languages and literacy levels, identifies an unexplained variance in L2 reading. Bernhardt (2005:138) further states that the issue of L2 reading is not about identifying a linguistic threshold, but instead about “clarifying the relationship of linguistic knowledge to literacy knowledge to individual/idiosyncratic knowledge”. She continues (2005:138) by stating that “the question is not if language and literacy skills transfer. The question is how much transfers, under what conditions, and in which contexts” [author’s emphasis].

Clarke (1980:206) states while research seems to show there is “some transfer of [L1] skills”, it seems that “limited language proficiency” is a factor that exerts “a powerful effect on the behaviours utilised by the readers”. Poor language skills may “short circuit the good reader’s system” (Clarke, 1980:206) causing the reader to revert to poor reader strategies when confronted with a difficult task in the second language - in other words, it may be more correct to speak of ‘good’ and ‘poor’ reading behaviours rather than ‘good readers’ and ‘poor readers’. If one accepts Clarke’s focus on ‘reading behaviours’ vs. ‘readers’, the importance of reading
strategy instruction is emphasised: reading strategies teach readers specific behaviours while reading, such as predicting, confirming, looking for textual clues. Bernhardt (2005:140), in proposing solutions for addressing the unexplained variance in L2 reading, suggests that, amongst other things, the variance be addressed by comprehension strategies.

Although most L2 reading research seems to share the opinion that limited L2 knowledge can inhibit L2 readers from using acquired L1 skills (Koda, 2004:23), it is important to highlight the following statement by Bernhardt (2005:141), namely that “there is a notorious monolinguality within L2 research”. This means that although L2 research abounds, most of it has been conducted in English by researchers who tend to be English L1 speakers. Although L2 research has been conducted on groups from multiple language backgrounds, it seems the variables introduced by these multiple languages have not been adequately acknowledged, and that assessment of L2 subjects tends to be in English, rather than the L2 (mostly due to researchers’ lack of L2 proficiency).

Irrespective of researchers’ differences of opinion about the role of L1 oral competence in particular, the presence of the L1 is bound to affect reading in the L2. In South Africa English is most often the language of learning and teaching; however, English bears little if any resemblance to any of the nine official African languages and is often not learners’ L1 (therefore, no link can be made between their oral proficiency and the written word). For example, in isiXhosa “I am learning” is translated with “Ndiyafunda”. Not only is the expression represented by one word instead of three in isiXhosa, but “Ndiyafunda” can also mean “I am reading”, making it more context dependent than the English phrase. Koda (2004:25) indicates that decoding efficiency is a “strong indicator of L2 reading performance” and that L2 decoding efficiency is at least partially determined by “L1-L2 orthographic distance” - which would mean that the kind of orthographic differences between English and isiXhosa illustrated above will create problems for L2 decoding skills.

More recent research, while not necessarily disagreeing with the fact that L2 readers use L1 linguistic structures when reading in an L2, indicates that L1 and L2 reading differ fundamentally and therefore require separate research paradigms (Koda, 2004:4). Whether L2 reading is seen as a process dependent on L1 proficiency or as a separate research paradigm entirely, one thing is clear: not only is learning to read in a second language a complex task on its own, but using a second language to learn
probably increases the need even further for the conscious and active teaching of reading comprehension.

A further issue that should be pointed out and which is not always forthcoming in existing L2 reading research, is that a distinction should be made between learning to read an L2 and learning to read in an L2 (i.e. acquiring the skill of reading). Most research about L2 reading is based on the assumption that L2 readers have an L1 reading framework to refer to (in other words, they have already acquired the skill to read). In the South African multilingual education situation, however, this is often not the case. Many learners, especially those from low-SES or rural communities who have had limited exposure to literacy events of any kind, are required to acquire the skill of reading for the first time in Grade 1 in a language that is not their L1. The question might well be asked to what extent this impacts reading and comprehension processes and learner performance in general, especially if the L1 is not similar in linguistic or social structure to the language in which the learner is learning to read for the first time.

2.7 Writing and comprehension

Becoming literate can be described as “acquiring the ability to both comprehend and produce written text” (Juel, Griffith & Gough, 1986:243). One of the central beliefs of Emergent Literacy (see 2.5) is that children’s development in the areas of listening, speaking, reading and writing is interrelated (Tracey & Morrow, 2006:85). This view is supported by Shanahan (2008:171) who describes the four language areas as developing in “overlapping and parallel waves” rather than sequentially. What these views imply is that children who are proficient with listening and speaking tend to do well at early reading and writing, and children who have difficulties tend to be more at risk for reading difficulty. The belief that areas of literacy are interrelated implies that positive growth in one area will positively affect the other areas of development.

The high-level processes involved in reading and writing have historically been treated as independent fields of study, with reading traditionally regarded as a receptive skill and writing as a productive skill. Research into the relationships between processes involved in comprehension and production of written text is fairly young. The answer to the question “Is writing a process or a product?” was the subject of much debate and research in the 1970s when standard writing domains included grammar and “conventional” compositions (Headley, 2008:215). During the
1970s most research was directed at teaching writing composition (a method still applied in many schools today). In the 1980s, the strong cognitive focus in educational psychology resulted in a markedly different approach to research into writing. The Whole-language approach to teaching language started to encourage the use of “writing to respond to reading” (Pressley et al., 1992:529), and an emphasis on the “similarity of thinking processes involved in reading and writing” led theorists to consider whether they were “mirror images of the same skill” (Juel, Griffith & Gough, 1986:244). Researchers concentrated on studying successful writers and concluded that writing consisted of a complex set of cognitive tasks that could be taught and improved.

The most notable model of writing that emerged during this time is what came to be known as the Carnegie Mellon Model (Pressley, 2005:350-351). It consisted of a specific set of steps that a writer went through to produce good writing. The main three steps (each with sub steps) included planning, drafting and revision. Flower and Hayes (1977:460), however, disagree that writing occurs in a “series of independent temporally bounded actions [such as] pre-writing, writing, rewriting”; instead they state that writing “rarely if ever exhibits those autonomous stages” but “moves in a series of non-linear jumps from one problem and procedure to another”, making it an “iterative” and recursive process. Flower et al. (1992:182-183) remind us that the planning involved in writing is usually shaped by the social context of any given writing task, and that writers “negotiate these … contexts to produce a unique text” using, amongst other things “topic knowledge” (prior knowledge/schemata) and “discourse conventions”.

Fitzgerald and Shanahan (2000:39) summarise three approaches to research into reading-writing connections, namely the (1) rhetorical approach (the belief that reading and writing are communicative activities and that learners can gain insight into these activities by being both the sender and receiver), (2) the procedural approach (the study of how reading and writing can be used together; most research in this field has combined reading and writing with academic tasks, such as the effect of note-taking on comprehension), and (3) the shared knowledge approach. The shared knowledge approach has been researched most widely and is based on the assumption that reading and writing share cognitive and knowledge processes.

Research (De la Paz & Graham, 2002; De la Paz, 2007; Kirmizi, 2009) has shown various parallels between the cognitive processes of reading and writing: in both
reading and writing learners are constructing meaning between the text and what they know and have experienced, and both reading and writing require knowledge of a language. Knowledge of a language is typically described to include knowledge of graphophonics (processing letters, syllables, words), syntax and text characteristics (Pressley, 2005:347). Shanahan (2008:174) adds to this list the use of memory and a shared prior knowledge base, and states that improvement in any of these areas is bound to have positive effects on both the reading and writing ability of a learner. Working memory, as with reading, plays an important role in writing. Specifically phonological and orthographic knowledge are closely linked in beginner readers and writers. Research has shown that the reading-writing relationship changes with reading development, and that reading comprehension in young readers is influenced mainly by word-level skills (decoding and spelling) whereas learners whose word recognition skills were more developed are able to focus more attention (working memory) on comprehension (Juel, Griffith & Gough, 1986:243). The same is true for writing: if a child has difficulty spelling, or spells slowly and needs to spell out each word as he writes, this will use up considerable working memory and impair the writing process (Pressley, 2005:363).

Fitzgerald & Shanahan (2000:40) identify four sets of knowledge that are shared by reading and writing. The first is content (or domain) knowledge, and the role of reading is obvious in this regard – learning new information is one of the most basic purposes of reading. The role of writing in content knowledge is less obvious and not much research seems to have been done in this regard. However, most successful students will confirm that once they have written down a summary of facts (often repeatedly), they recall the facts more easily than when it had only been read. The second knowledge base is metaknowledge, which includes knowledge of the functions and purposes of reading and writing. This would include knowledge and awareness of writers’ intentions from a reader’s perspective, and the expectations of a reader from a writer’s perspective, as well as monitoring one’s own knowledge. The third knowledge base entails specific features and components of written language that are similar in reading and writing. This includes letter and word identification, syntax (rules of grammar and the knowledge that there are differences between certain syntactic structures in oral and written language) and knowledge of text format (story grammar, relationship between text and print, use of paragraphs, etc.). The fourth knowledge set is called procedural knowledge, which involves the ability to access, use and generate knowledge from the previous three knowledge sets.
A newer approach to writing, namely the socio-cultural approach, developed during the 1990s. This approach challenged the idea that writing was a top-down process, and instead focused on the social and cultural contexts of the writer, text and language (Pressley, 2005:355).

Research into the reading-writing connection, although still relatively young, has so far shown definite correlations between reading and writing although it has also shown that there are distinct differences, and that the nature of the relationship is different at different ages and grade levels. Generally writing is regarded as being more difficult than reading. For example, in terms of vocabulary, when a reader reads a text the reader’s meaning-making choices are limited to the vocabulary used by the writer. However, the writer when composing a text is not necessarily constrained by the reader (unless writing for a specific age group with a specific goal in mind) and therefore has far more options to choose from (Fitzgerald & Shanahan, 2000:43).

In terms of the difference in the relationship between reading and writing at different ages and grade levels, the correlations between reading and writing (where they can be identified) are best described by the aspects of language learning that are important at a given stage, such as phonological and orthographic development in young readers. This does, however, suggest teaching reading and writing at the same time rather than first “entrenching” reading skills before introducing children to writing (Fitzgerald & Shanahan, 2000:42). Indeed, findings suggest that combined reading and writing encourages a more inquisitive attitude to learning, and “facilitates the expansion and refinement of knowledge” (Tierney & Shanahan, 1996:265), and that “writing should be introduced soon after reading instruction commences” (Shanahan & Lomax, 1986:122). Nathanson (2008:62) supports this view in her approach to early literacy learning, which proposes that children should be immersed in rich language experiences which include both reading and writing from the start of literacy learning in order to teach “letter, word and sentence knowledge within the context of reading and writing continuous texts”. While in some countries and in some schools teachers have begun to embrace the fundamentals of writing (as indicated by modern research) it seems that the “conventional” method of grammar and composition writing is still the norm in most South African schools today.

The use of writing as an end result of some of the strategies proposed in the framework for this study should serve to introduce a more balanced view of writing instruction in schools. Writing tasks can be combined with most reading strategies
and reading comprehension has been shown to “bond with writing for content learning when writing is used as a tool before, during and after reading” (Headley, 2008:216). The strategies to be used in this study will concentrate on (1) the three stages of reading (before reading, during reading and after reading) and (2) on maximising the use of strategies in content learning. Therefore, in using writing as part of the strategies a step will be made toward increasing the link between reading and writing.

This concludes chapter 2, which served to provide a view of current theory (research) through a selection of perspectives on reading and reading comprehension and a short discussion of the link between writing and comprehension. The perspectives were selected to especially demonstrate the development of the role of the reader, text and context in reading research, with a view to informing the framework for reading strategy instruction to be proposed by this study. However, as stated in the Introduction, the conceptual framework places this study in the gap between current theory (research) and current reality (practice). What must, therefore, be done next, is to provide an overview of current reality. This will be done in Chapter 3.
Chapter 3

A View of Known Practice

This chapter focuses on a description of current practices related to teaching reading and reading comprehension. It will include a short discussion of reading instruction in South Africa, followed by an analysis of the Department of Education’s Revised National Curriculum Statement (RNCS) in terms of the theoretical perspectives described in Chapter 2, the language of instruction in South Africa and reading comprehension instruction in general. The analysis of the Curriculum Statement will be followed by a description of reading strategies: existing research, their research-proven value and details about the strategies used in the research intervention.

3.1 Reading instruction in South Africa

Durkin (1978), in her well-known observation of classroom practices during 1978-1979, observed that teachers did not teach learners how to comprehend, but rather asked learners questions after reading to assess comprehension. It was only from the late 1970s that comprehension started to receive increased attention from researchers and scholars interested in reading education (Pressley, 1998:114). Comprehension instruction has received considerable attention since the 1970s in other parts of the world, most notably the United States, where various universities (e.g. Harvard University, Ohio State University, Georgia State University and Marshall University) offer certificate, graduate and post-graduate courses in reading specialisation; most of these courses include specific attention to reading comprehension. However, despite increased focus on reading comprehension in research, in general, very little comprehension instruction currently occurs in schools worldwide (Pressley, 2001:631; Pressley & Harris, 1990:31). According to Van Keer & Verhaeghe (2005:544) the practice of teaching reading nowadays is “still very traditional, mainly characterised by teacher-led comprehension ‘testing’ or questioning students about the content of a text after reading it and hardly any overt and continuous strategy instruction or student-centered discussion”.

In South Africa, no formal strategy seems to exist for comprehension strategy instruction in schools and the emphasis remains on comprehension testing (i.e. a learner is required to answer written or oral questions about a text after reading the text). Concerns about low learner achievement levels in South Africa are based on
well-documented findings from systemic evaluations done in grades 3, 6 and 9 in 2005 (Department of Education, 2005). The concerns are further based on annual matriculation results, and drawn from international comparisons of studies on proficiency in language, literacy, mathematics and science at different grade levels, such as the PIRLS (Progress in International Reading Literacy Study) Survey (Howie et al., 2007). Such findings seem to suggest that literacy teaching methods in South Africa are not achieving the aims set out in the curriculum. The most commonly used method of teaching second and foreign languages in South Africa seems to be the Communicative Language Teaching method (see 3.5.2). However, based on recent research into literacy level problems in South Africa (specifically the Limpopo province), Prinsloo (2008:7) states that language teaching methods in South Africa include a “loosely-applied whole-language approach and more lenient approaches to literacy development, in conjunction with communicative approaches to language teaching which emphasizes authentic communication”.

To determine (1) to what extent the issues of reading and reading comprehension are addressed in the National Curriculum, and (2) to what extent language instruction guidance is given for the unique multilingual and multicultural education situation (which includes reading in a second language), the following Department of Education publications\(^8\) were analysed in terms of the perspectives in 2.1 to 2.6 of the previous chapter: The Revised National Curriculum Statement Grades R-9 (2002), the RNCS Grades R-9 Languages (2002), the RNCS Grades R-9 Home Language (2002), the RNCS Teacher’s Guide for the Development of Learning Programmes in Languages (2003) and the Western Cape Education Department’s Literacy and Numeracy Strategy 2006-2016 (2006).

It is important to state the following up front: a National Curriculum Statement is by nature a high-level document that informs its audience of general objectives and guidelines. Hence the implementation of said general objectives and guidelines is usually brought about by training and supporting documentation with sufficient clarity and information to enable end users to implement the objectives. Criticism (where it occurs) of the DOE documents discussed in the following sections must, therefore, be regarded as concern for the lack of detail and guidance apparent in the supporting

---

\(^8\) To prevent a confusing repetition of the reference “Department of Education” in the following sections, the various Department of Education publications will be referred to as follows with their respective year and page references: Revised National Curriculum Statement Grades R-9 (RNCS), RNCS Grades R-9 Languages (RNCS-L), RNCS Grades R-9 Home Language (RNCS-HL), RNCS Grades R-9 Teacher’s Guide for Development of Learning Programmes (RNCS-TG), WCED Literacy and Numeracy Strategy 2006-2016 (WCED-LNS).
documentation, especially in view of the WCED-LNS (2006:4) acknowledgement that the DOE’s approach of “orienting instead of training” teachers in the RNCS’s goals “has hindered the growth of conceptual developments, innovation, creative thinking and imagination”. If teachers are still left to fend for themselves in interpreting and implementing the RNCS, the lack of guidance in the RNCS should be a concern.

To strengthen the point about lack of clear teacher guidance for reading strategy instruction (as part of reading comprehension) in teaching reading, a textbook for teachers (Wessels & Van den Berg, 1998⁹) that is widely prescribed shows a similar lack of clarity and direction in terms of reading strategies. The textbook does make reference to “pre-reading activities” as part of “preventing cross-cultural interference” and ensuring that learners’ “schemata are correctly activated” (Wessels & Van den Berg, 1998:216), but it places these activities under the umbrella of developing “top-down skills” (p.217). In terms of using reading strategies as they are understood by this study the textbook suggests using pre-reading activities which “activate background knowledge” (p.218), “making predictions” and “using comprehension questions as pre-reading questions” (p. 219) and, somewhat paradoxically, suggests the use of text maps as part of “while and post-reading activities” for activating background knowledge and summarising texts to make information “more interesting and easier to remember” (Wessels & Van den Berg, 1998:226). While it cannot be denied that some form of reading strategies is used in this textbook, the ‘strategies’ are not explicitly linked to the activation of learners’ own socio-cultural schemata, or the monitoring of comprehension or the consolidation of understanding of the text (as opposed to merely remembering the text).

3.2 A theoretical perspective of the National Curriculum Statement

As was shown in Chapter 2 views of reading and reading comprehension have historically drawn on the assumptions, beliefs, values and world views of the multitude of philosophies that exist at any given time, and that these philosophies, in turn, are human interventions and social enterprises influenced by the “political, social and economic contexts of the society in which they are conceived” (Willis,

---

⁹ Only the first edition of this textbook was consulted – comments should be read in the context of determining to what extent explicit strategy instruction is addressed in a widely-prescribed textbook, not as criticism of this particular work per se.

10 It should be pointed out that, in this study’s view, cross-cultural differences are not viewed as ‘interference’ that must be ‘prevented’, rather that they should be ‘addressed’. Similarly, learners’ schemata should merely be activated, rather than be ‘correctly activated’.
2008:1). The South African Department of Education’s Revised National Curriculum Statement differs very little in this regard: it clearly states the intentions and ideology of the reigning government which wishes to distance itself from the previous Apartheid regime and Department of Education in various references such as: “… our education system and its curriculum express our idea of ourselves as a society and our vision as to how we see the new form of society being realised through our children and learners” and “[t]his curriculum is written by South Africans for South Africans who hold dear the principles of democracy” (RNCS, 2002:2); “Literacy … is therefore a key aspect of social justice … to redress past inequalities” (RNCS-TG, 2003:23) and “The Constitution … provides the basis for curriculum transformation and development …” (RNCS-L, 2002:1).

Apart from the more overt ideological references, the curriculum and its supporting documents mention a variety of theoretical perspectives of literacy and learning. References to the following perspectives appear in the curriculum and related documents: social learning, emergent literacy and constructivism. However, the perspectives are usually mentioned in separate documents, and mostly in isolated support of a particular view rather than in a coherent description of each particular perspective. The RNCS generally seems to take a more ‘socialist’ than social learning stance in that it strives to ensure that “the nation’s social values” as well as “social justice” are expressed and promoted through the curriculum (RNCS, 2002:8), and “the collaborative construction of knowledge through social negotiation, not competition among learners for recognition” (WCED-LNS, 2006:8) is ensured. However, in terms of a social learning stance, which emphasises the importance of social influences and social interaction on literacy learning (Tracey & Morrow, 2006:100), the RNCS-TG is clear in acknowledging that teachers need to be aware of the “social, emotional, physical and other needs of the learners when developing learning programmes” (2003:7) and must also take “broad consideration of the social, economic, cultural and environmental contexts of the learners” (2003:10) in teaching and assessing their learners. The WCED-LNS takes the most explicit view of social learning in stating clearly that its literacy and numeracy strategy is based on social constructivist principles. It also takes a strong view on the fact that since the introduction of the NCS and RNCS, teacher training merely ‘oriented’ teachers to policy goals instead of ‘training’ them in issues related to epistemology. One of the aims of the WCED’s Literacy & Numeracy Strategy is, therefore, to ensure that teachers achieve sufficient “understanding about epistemology or theories of knowledge” related to teaching requirements (WCED-LNS, 2006:4). The strategy
document goes on to provide a rather comprehensive explanation of constructivism, and in particular of social constructivism. It clearly states, among others, that teachers and learners must both be active participants in learning, that teachers are responsible for setting an appropriate context that engages learners and promotes learning (WCED-LNS, 2006:13), that learning is an active process during which a learner constructs meaning, that learning involves language, that learning is a social activity and that learning is contextual and requires motivation to occur (WCED-LNS, 2006:14-15).

Mention is further made of emergent literacy (see 2.5), both in the RNCS Home Language and First Additional Language statements and the WCED-LNS. However, these references are vague and even confusing: the RNCS First Additional Language statement describes emergent literacy as knowledge gained “naturally” by learners, “especially through listening” (2002:9). The RNCS Home Language statement (2002:9) mentions emergent literacy as part of the curriculum’s “balanced approach to literacy development” (the first and only mention of a balanced approach to literacy in all the DOE’s documents); it describes the curriculum’s approach as ‘balanced’ because it “begins with children’s emergent literacy, it involves them in reading real books and writing for genuine purposes, and it gives attention to phonics”, and that in reading, this means “moving away from the reading readiness approach”. On the other hand, the most detailed supporting document for teaching reading, the Teaching Reading in the Early Grades Teacher’s Handbook (2007), while seemingly designed around emergent literacy principles, makes no mention of emergent literacy. While a person familiar with theoretical concepts of literacy learning might recognise the inference to the Whole Language approach and the Constructivist acknowledgement of the learner as an active participant in the process of constructing knowledge, a less informed teacher might not recognise these facts or find the curriculum statements very informative.

In essence, the RNCS and its supporting documents leave the reader with no clear sense of the theoretical perspective that should underpin teaching in South Africa, and even less guidance for how to go about implementing such theoretical perspectives in teaching. The lack of detail, coherence and informed guidance of these documents should be a concern to administrators and educators.
3.3 A critical perspective on the RNCS

The RNCS is clear in its intentions to implement a multilingual education system which promotes home-language instruction while developing an additional language at the same time. The WCED’s Literacy & Numeracy Strategy, in particular, indicates an awareness of the importance of a more constructivist view on learning, and that literacy be taught in a combined phonics and ‘whole language’ approach in which the “making of meaning” is stressed (WCED-LNS, 2006:2). The intention seems to indicate the rejection of a one-size-fits-all standard for literacy with a focus on education in a multicultural and multilingual society in which individual differences are taken into account. Yet, at the same time, repeated reference is made in Department of Education publications to “alarmingly poor literacy levels” (WCED-LNS, 2006:4; DOE, 2005). The low literacy figures are indeed alarming, but the comment could well be made that the figures are alarming only if applied to the measurement of literacy used in the tests which produced these low figures. From this point of view one cannot help but feel that the RNCS still resembles a very specific view of literacy, namely that of schooled literacy (in other words, nothing much has changed from the pre-1994 curriculum). If schooled literacy is indeed the view of literacy that the RNCS intends to take - this would seem contradictory to the RNCS’s ideological objectives as well as its stance on social learning.

Generally the RNCS, like most policy documentation, seems to represent a predominantly ideological view as it “attempts to weave the values of social justice, equity and democracy” (RNCS, 2002:8) into the curriculum and “embody and uphold a democratic vision of the society” (RNCS, 2002:11), in which “social justice require[s] that those sections of the population previously disempowered by the lack of knowledge and skills should now be empowered” (RNCS, 2002:12). In its attempts to achieve these ideals, however necessary they may be, the RNCS recommends and promotes multilingual education, yet the reality in schools continues to show a preponderance of English over home-language instruction. The RNCS promotes social (constructivist) and emergent literacy learning principles, yet Foundation Phase instruction in particular continues to focus on methods that do not seem to take all learners’ individual sound systems and background knowledge into account. Overall there seems to be some conflict between what the RNCS purports to implement and what is being implemented in schools based on its documentation.
3.4 Reading comprehension and the National Curriculum Statement

The Revised National Curriculum Statement Grades R-9 (2002) does not use the words ‘comprehension’ or ‘comprehension instruction’, nor does it make any direct reference to comprehension. The words ‘understand’ and ‘understanding’ are used 22 times, but not in reference to reading comprehension. Language outcomes are listed as: Listening, Speaking, Reading & Viewing, Writing, Thinking & Reasoning and Language Structure & Use (RNCS, 2002:21). In regard to reading, reference is consistently made of learners’ ability to “read, write and view” texts (RNCS-TG, 2002:26, RNCS, 2002:20); the assumption is either that comprehending the text is not deemed to be part of reading, or it is deemed to be included in learners’ “viewing or thinking & reasoning” ability, although this is not explicitly stated.

The RNCS Home Languages makes nine references to ‘comprehension’ in 151 pages, of which eight pertain directly to reading comprehension, however, many more references are made to ‘understanding’ in regard to reading. The RNCS-HL (2002:10) states explicitly that “the development of various word recognition and comprehension skills such as phonemic awareness” is encouraged, but restricts examples of ‘word recognition and comprehension skills’ to phonics-related skills. However, in the assessment criteria per grade section for the reading and viewing learning outcome, direct reference is made to being able to “read texts alone, and use a variety of reading strategies to make meaning” (RNCS-HL, 2002:35), and “use appropriate reading and comprehension strategies” (RNCS-HL, 2002: 72, 73). While most of the examples of activities listed under the assessment standards are, in fact, acknowledged reading strategies (as identified by research, e.g. Block & Duffy, 2008:22), this is not made clear to the reader at all. In fact, the RNCS-HL seems to set its use of ‘comprehension strategies’ apart from acknowledged strategies, such as skimming, scanning, prediction, monitoring comprehension also listed in the document. In addition to the confusing classification of ‘strategies’ no further detail is provided about the mentioned strategies or how to go about implementing them. In fact, when the RNCS-HL assessment standards for Reading and Viewing are compared to the same assessments standards for the RNCS First Additional Language (RNCS-FAL) it seems that while the RNCS-FAL explicitly requires learners “to understand” (story elements, social and ethical issues, role of visual images in constructing meaning, to name a few concepts) the RNCS-HL seems to assume that understanding takes place.
The *RNCS Teacher’s Guide for the Development of Learning Programmes in Languages*, the document which should ideally provide teachers with more detailed instructional guidance, does refer to “reading strategies” (RNCS-TG, 27), but does so in a single paragraph and lists different strategies to those mentioned in the RNCS for Home Language.

The RNCS-TG (RNCS-TG, 2003:26) further recommends that the languages learning area uses a “text-based approach” for teaching languages, which involves “reading, viewing and analysing texts to understand how they are produced and what their effects are”. Again, no specific reference is made to comprehending text and it is assumed that the combination of “reading and viewing” and “thinking and reasoning” implies comprehension has taken place. The purpose of the text-based approach is described as enabling learners to become “competent, confident and critical readers, writers, viewers and designers of texts” (no reference to comprehenders of text). In terms of reading, direct reference is made of teaching learners “reading strategies”; however, not for the purpose of developing comprehension, but rather for being able to read “flexibly and purposefully with confidence and enjoyment” and to “develop reading skills” (RNCS-TG, 2003:27). While the aforegoing comments may seem overly critical, especially from a semantical (comprehend vs. understand) point of view, the intention is merely to highlight what the curriculum statements for languages do not provide, namely a clear distinction between and focus on developing reading *comprehension* as opposed to reading *skills*. Furthermore, while it is a positive sign (at least from this study’s point of view) that reading strategies are mentioned in connection with reading, the RNCS documents for languages lack clear definitions for instructions for implementing them.

The *Teaching Reading in the Early Grades: A Teacher’s Handbook* (TR-TH) (Department of Education, 2007), on the other hand, explicitly lists comprehension as one of the components of teaching reading, after *phonemic awareness* and *word recognition* (DOE, 2008:3) and describes methods for improving comprehension (albeit at a superficial level). Although the term is not used, the Handbook seems to support a mix of Whole Language and emergent literacy approaches to teaching reading; Unit 1 (TR-TH, 2007:3) recommends a daily “Focus time” for teaching reading and writing which should include shared and/or guided reading and writing, a mix of whole-class and individual reading and writing activities, and a word and/or sentence-level approach to reading (vs. a phonics-only approach). The Handbook describes the stages in reading development as a guide for teachers in monitoring
their learners’ reading progress across grades (TR-TH, 2007:8-11), as well as supplying a whole chapter (Unit 5) for assessing learners’ reading stages (TR-TH, 2007:35-52). While the Teacher’s Handbook shows that important issues in reading are being acknowledged by the Department of Education, the document provides little guidance for the implementation of the principles and methods it espouses, particularly in view of the problem of large classes and lack of adequate resources experienced by so many schools. It must be questioned how much value a teacher will gain from this document without the context of proper and detailed training about the concepts promoted by the Handbook.\(^\text{11}\)

### 3.5 Language of instruction and the development of literacy

In the Department of Education’s Intermediate Phase Systemic Evaluation Report (2005:96) which evaluated Grade 4-6 learners’ performance in reading, writing and numeracy, it states that “[l]earners who took the test in their home language, where this was the same as the LoLT, obtained substantially higher scores than learners whose home language was different from the LoLT, and as a result, wrote the test in a second or third language. This trend was noted across all provinces …”. In the foreword of this survey, the Director-General states that one of the most important facts highlighted by the survey is that “language is a major factor in children’s learning” and that it is urgently necessary to “turn around low levels of learner achievement, especially in … language ability – both home language and the language of learning” (Department of Education, 2005:v).

Despite the Director-General’s comment above, learners – particularly in rural areas - either do not receive instruction in their L1, or where they do receive L1 instruction the quality of teaching and absence of adequate learning materials in their L1 are often a problem. English seems to be the growing medium of instruction in South African schools, particularly in the Intermediate and Senior Phases. The choice of English as medium of instruction is largely a historical one. In essence, English as language of learning and teaching (LoLT) in a self-proclaimed multilingual country is, rather disturbingly, based on the perception of the importance of English to ‘succeed’ in life and work and not on the actual dominant use of English by a majority of the population or users’ proficiency in the language. Heugh (2007:192) states that this “public perception of the predominance of English, as recorded and presented by the

\(^{11}\) READ, an NGO based in South Africa, provides teacher training and RNCS-aligned literacy programmes in (primarily low-SES) pre-primary, primary and high school projects throughout Southern Africa.
media, senior members of the government, and top management of the private sector, reflects a reality pertinent to only a small percentage of the South African public”. This brings to mind the issue of ‘elite closure’, described by Myers-Scotton (1993:149) as a “type of social mobilisation strategy by which those persons in power [the elite] establish or maintain their powers and privileges via linguistic choices”. A PANSALB survey performed in 2001 showed that the “language of greatest fluency” in Grades 0 – 5 was indeed not English, but (in order of result) Zulu, Xhosa and Afrikaans (English placed last in the top seven languages that emerged). The same three languages scored the same top three positions in the category of Language Proficiency in Relation to Age (16-17 years).

In 2001 PANSALB recommended to the Department of Education that English should not be the medium of teaching in all schools and that the home language be used as LoLT until at least grade 6 with English as one of the subjects, where after a switch to English as LoLT would be more realistic (Parliamentary Monitoring Group, 2001). Despite the post-1994 government’s implementation of a policy of 11 official languages and the Language in Education Policy announced in 1997, very little has actually happened in terms of the promotion and resourcing of the use of multiple languages in education (or any other domain, for that matter – most big businesses seem to have opted for an English-only language policy which only serves to exacerbate the perception of the ‘importance’ of English). Instead the language situation in South Africa has defaulted to one language of power, namely English, and this situation has been generally accepted as a response to “past resentment of African language and English speakers towards Afrikaans as the language of vertical control” (Heugh, 2007:200). In addition to the attitude towards Afrikaans, a suspicion of mother tongue education as a relic of the Apartheid Government’s Bantu Education System continues to work against African languages as languages of learning and teaching.

Heugh (2007) goes on to state that “whilst English is believed to be the horizontal language of access, it has become the vertical language of exclusion”. As a result, while English continues to function as the only language of access, there is a simultaneous decline in the level of ESL literacy proficiency. The irony of the situation is hard to miss: in declaring 11 official languages South Africa has excluded itself from being acknowledged by the rest of the world as an English-speaking country – and yet English is promoted as the ‘language of success’ and the language of instruction, and even learners who have received their entire schooling in English are
required to submit to English proficiency testing in Europe and America when applying for work or study.

### 3.5.1 Multilingualism and the National Curriculum Statement

With respect to the LoLT in South Africa the Revised National Curriculum Statement (RNCS) of 2002 states that “in a multilingual country like South Africa” it is important that learners achieve “high levels of proficiency in at least two languages” and that they be able to communicate in other languages. The RNCS goes on to say that learners’ home languages should be used for learning and teaching “whenever possible”, but especially in the Foundation Phase “where children learn to read and write” (RNCS, 2002:20). The RNCS further states that the Languages Learning Area should follow an “additive or incremental approach to multilingualism” which includes learners learning their mother tongue and at least one additional official language. It is also stressed that learners maintain their home language while becoming competent in their additional language. The RNCS-TG (2003:19) underscores the RNCS’s view of the importance of language in general by stating that the “Language Learning Area ... underlies all other Learning Areas, since language is the medium in which all teaching, learning and assessment takes place. Thus without language no other Learning Area would exist”. When these statements are taken at face value they seem to indicate an acknowledgement in South African education of the importance of the home language as LoLT, the need for competence in more than one language (multilingualism) and the importance of language in education in general.

However, by making these statements the RNCS seems to assume the following:
- that instruction in a learner’s home language is possible at all times,
- that teachers are sufficiently trained to provide instruction in the respective home languages,
- that adequate teaching resources exist in all home languages, and
- that learners achieve literacy (reading, writing, speaking, listening) in their home language to a level of proficiency that will enable transfer of such literacy to the First Additional Language (as stated in the RNCS-TG, 2003:20).

These assumptions cannot safely be applied in the South African education context because the majority of learners do not receive Foundation Phase instruction in their home language, or if they do, the quality of instruction is inferior due to inadequately
trained teachers or lack of teaching resources in the specific home language. Despite clearly stating that “high levels of proficiency in at least two languages” is important, little further reference is made to the use of multiple languages in learning, or how teachers should go about using a LoLT that is not the same as learners’ home language. While the RNCS acknowledges that home-language instruction is not always possible and that a switch away from the home language as LoLT earlier than Grade 6 is a reality and must be catered for, very few guidelines are provided for how to address the problems associated with such a switch. In terms of an ear(lier) transition to an additional language, reference is made to the necessity of “careful planning” which should include introducing the additional language as a subject in Grade 1, and in cases where a learner cannot be taught in the home language, provision should be made for “special assistance and supplementary learning in the additional language” (RNCS-L, 2002:5). The reference to developing literacy in the child’s “strongest language” is also misleading because (in remote rural schools) the child’s strongest language could conceivably be none of the languages available as LoLT or a language in which the teacher is not proficient.

In terms of multilingual education, the WCED launched its 10-year Literacy and Numeracy Strategy in 2006. This strategy aims, amongst others, to educate teachers more effectively for a multilingual and multicultural environment, to promote the use of home language as LoLT until the end of Grade 6 (compared to the end of grade 3 as stated in the RNCS), and to ensure home-language at least at first additional language level in Grade 12 even in non-home language as LoLT schools (WCED-LNS, 2006:22).

Overall, however, there is a distinct lack of direction in the RNCS (and its supporting documents, the RNCS-TG and RNCS-L) about how to go about “making multilingualism happen” (RNCS, 2002:7). The RNCS-TG (2003:20) suggests that, once learners are able to understand simple classroom instructions in their additional language, the teacher is able to manage the classroom in two languages, namely the LoLT and “another language”. The RNCS states that school governing bodies are responsible for selecting school language policies “appropriate for their circumstances and in line with the policy of additive multilingualism” (RNCS-L, 2002:4). While on the one hand literacy in the home language should be a priority, it will in all probability never be a reality for many South African learners. This lack of L1 instruction for all currently seems to lead to school governing bodies’ support of the ‘invasion’ of English as LoLT.
However, as appealing as multilingual teaching is made to sound by the RNCS, and as important as it may be in South Africa, some obstacles remain: multilingual teaching assumes the ability of teachers to teach in more than one language at the same time, the availability of teaching resources in multiple languages and an agreement as to which languages comprise ‘fair’ multilingual teaching in any particular school or community. Multilingual teaching also implies that the home language can be catered for, even if only as an additional language. With 11 official languages, geographically poorly-defined linguistic boundaries (Hill, 2003) and the differing status of languages in different communities, it may well be that for some learners neither the LoLT nor the additional language is the same as their home language. Perhaps with clearer direction from the Curriculum Statement about which competencies and literacies should be addressed by the chosen languages the tide of English as only ‘language of literacy’ might be stemmed. In view of the importance of English in tertiary education and bigger business it makes sense to select English as one of the languages in a multilingual class, but English should not have to replace the home language to enable literacy. Van der Walt (2006:174) states that “multilingualism does not imply the full use of more than one language in all possible domains”. However, it would seem that a form of “monolingual bias” is taking hold in South African education, whereby so-called ‘competence’ in a language is measured against native-speaker competence of the language (Cook, 1997). In view of this statement, as well as the RNCS’s direction that learners’ home language is maintained and developed while learning an additional language, perhaps policy makers should be clearer about recommending languages and clearer about the type of literacies to be taught by specific languages. If English is indeed the language necessary for tertiary education, perhaps the RNCS should focus on using English as First Additional Language (where it is not the L1) to develop academic literacy in schools, rather than developing overall communicative literacy (Van der Walt, 2010a).

3.5.2 Method of language instruction and the RNCS

In terms of information provided about the method of instruction for languages the RNCS and its related documents lack clarity and are sometimes confusing. Information about language instruction will be discussed briefly because it can be said to affect reading instruction. The confusion in the RNCS and its supporting documents is created mainly due to the inconsistent distinction between additional languages and first additional language and the accompanying recommendation (or
lack thereof) for teaching these languages. The RNCS-TG (2003:20) states that “in practice it is not necessary to have a rigid division between the teaching of Home and Additional Languages”. On p.26 a more nuanced stance is taken when it is stated that “the teaching and learning of Home Languages and Additional Languages is not different in approach or methodology” (this is in contrast to the RNCS-L (2002:4) which states that the “home, first additional and second additional languages are approached in different ways”). However, it is then stated that the “only difference” between the levels is in the emphasis on their respective learning outcomes: in the Home Language the emphasis will be on reading and writing, whilst speaking and listening will be emphasised in the Additional Language (no mention is made of first additional language despite this being a distinctly separate level, and arguably an important one in multilingual education). The RNCS-TG (2003:28) goes on to list the communicative approach as an “aspect” specific to the Languages Learning Area in general. In the absence of information to the contrary, the reader is left with the impression that the communicative approach – usually associated with teaching second and foreign languages – is to be used for all language instruction. However, when discussing the communicative approach in more detail, the RNCS-TG states that this approach will be the focus of Additional Languages. In the last sentence of the section on communicative approach, however, it is mentioned that “research has shown that the most effective way to teach Additional Languages is to combine a communicative approach with the teaching of language structure” because it enables language structure to be taught “in context” and allows attention to be paid “to meaning as well as form” (RNCS-TG, 2003:29). However, no further information about the “combined approach” is provided, and it is left up to the reader to decide whether to implement such a combined approach, and indeed, how to go about implementing it.

Many theorists and educators who promote the use of CLT agree the essence of language learning to be based on real communication rather than simply on learning the vocabulary, grammar, and structure of a language (Hiep, 2007:194). In an educational environment where learners receive L1 instruction in all subjects for their full 12 years of schooling and learn a second language through CLT, it would be hard to argue against the use of CLT with much conviction because most second and additional languages are introduced (and used, at least initially) at conversational level. However, considering the statistical evidence about current literacy rates in South Africa, it should be questioned whether - for learners who make a ‘dead switch’ from L1 instruction to English as medium of instruction in Grade 4 in all subjects - a
focus on vocabulary, grammar and language structure should not be more important than merely being adept at communicating. For example, research has shown that although there seems to be a link between grammatical skills and reading comprehension, vocabulary was a “particularly strong predictor of reading comprehension” (Goff, Pratt & Ong, 2005:589). Therefore, if learning and teaching (as opposed to conversations for the purpose of communicating in a new language) are taking place in what is effectively a foreign language for many learners in Grade 4, should the initial focus be so strongly on “real communication” only, or rather on acquiring the basic vocabulary, grammar, reading and writing skills needed for (academic) literacy in the language?

Overall, after reading the curriculum statement for languages, the reader is left with a few dilemmas: Which method of instruction to use for Home Language (if not the communicative approach); How to approach teaching the first additional language, since in the RNCS-TG (2003:22) it is given equal status to the home language when it is stated that “all six learning outcomes are equally important” in home language and first additional language. At the same time it is implied in both the RNCS and RNCS-TG that literacy in the home language serves to inform the literacies of the First Additional Language (refer Cummins’ threshold level hypothesis in 2.6), thereby implying that the languages are, after all, not quite equal.

3.6 The place of reading comprehension instruction

Traditionally, the teaching of any skills related to language (listening, speaking, reading and writing) has been allocated to the language teacher and restricted to the so-called language classroom. Or stated differently, anything related to the instruction of language has been the exclusive domain of the language teacher. This view is amplified by the RNCS (2002:21) statement that it is the language teacher’s responsibility “to ensure that the LoLT does not become a barrier to learning”. The statement contradicts the focus in the RNCS on integrating learning areas (RNCS, 2002:13,16) as well as the acknowledgement in the WCED’s Literacy and Numeracy Strategy that ideally “language learning does not only take place in the language subject class, it takes place in every lesson and every subject of the day” (WCED-LNS, 2006:19), and the RNCS-HL (2002:29) which states that “language is acquired holistically in all learning, and not only in the language classroom”. Teachers of other subjects typically assume that their learners are able to listen, speak, read and write in the language of instruction, and that any language-related problems (spelling,
comprehension, writing) are the 'language teacher’s problem’, or worse, the learner’s problem. In South Africa, despite being a multilingual country with a Constitution that proclaimed 11 official languages to have equal status and originally intended all learners to receive at least initial schooling in their mother tongue, the majority of learners receive only three years of mother-tongue instruction in the Foundation Phase (Grades 1-3) and then switch to English as the medium of instruction from Grade 4 onwards. According to research, this situation has led to alarming signs of poor literacy achievement, and this is “especially the case when the yardstick is English literacy” (Heugh, 2007:197).

The issue of where the teaching of language should rest will be discussed further in Chapter 7 of this dissertation; however it is prudent to point out now that it might be time to acknowledge that it should not be only the so-called language teacher’s domain to instruct reading comprehension, and more importantly, identify reading and reading comprehension problems. Prinsloo (2008:6) is of the opinion that “enough teachers” must leave teacher training institutions as experts in language teaching. Perhaps this should be taken one step further: all teachers should leave teacher training institutions with specific skills required for teaching and learning towards literacy and language acquisition. Since reading strategies can be applied to all types of text (both narrative and expository) they are a skill that all teachers should be able to employ throughout their teaching, irrespective of the subject being taught.

3.7 Reading strategies

Most discussions about language teaching in South Africa centre around literacy in general, whereas the focus of this study is specifically on a single component of literacy, namely reading comprehension through reading strategy instruction. But what exactly are reading strategies?

In essence, reading strategies are the things that skilled readers do to ensure that they understand what they read. Anderson (1991:460) describes strategies as “deliberate cognitive steps that learners can take to assist in acquiring, storing and retrieving new information”, while Paris, Wasik & Turner (1991:692) describe strategies as “actions selected deliberately to achieve particular goals”. For example, when skilled readers do not understand what they read, they will stop, re-read the difficult sections and try to determine what unknown words mean before continuing
reading. By stopping when they do not understand, skilled readers are monitoring their comprehension, and by re-reading difficult sections, they are using a “fix-it strategy” (Klapwijk & Du Toit, 2009). Less skilled readers do not possess these strategic reading skills, or if they do, do not apply them automatically in the way a skilled reader would. A further point about skilled readers’ use of strategies is that they do not use them in isolation; they usually employ a number of strategies at the same time. The simple fact is, skilled readers rely on more than processing skills alone (Koda, 2004:204); teaching reading strategies enables teachers to look beyond processing competence in teaching reading and instead towards comprehension.

Comprehension is a strategic process in which readers use cues from the text in conjunction with their existing knowledge of the text subject to make predictions, monitor the predictions and construct meaning from the text. In other words, comprehension is a “fluid process of predicting, monitoring and re-predicting in a continuous cycle” (Block & Duffy, 2008:29). This study, which takes the view that literacy is socially constructed and that the reading process comprises an interaction between reader, text and (socio-cultural) context, views reading comprehension as resulting from “an interaction among the reader, the strategies the reader employs, the material being read, and the context in which reading takes place” (Edwards & Turner, 2009:631).

Much research exists on the benefits of comprehension strategy instruction. Studies have shown that reading strategy instruction improves comprehension, for example Palincsar & Brown (1984), Dole et al. (1991), Guthrie (2002), Stahl (2004), Scharlach (2008), Spörer, Brunstein & Kieschke (2009) to name a few. Apart from improving reading comprehension, reading strategy instruction has been shown to benefit other areas related to reading, such as self control and regulating while reading (Haller, Child & Walberg, 1988; Paris, Wixson & Palincsar, 1986), effect on metacognitive strategy use in L2 test performance of low-ability groups (Purpura, 1998), improving decoding abilities (Van den Bos, Brand-Gruwel & Aarnoutse, 1998). Combining strategy instruction with other reading instruction methods have also proven to be of value, for example in a study by Wigfield et al. (2008) who investigated the benefits of combining concept-oriented reading instruction with reading strategy instruction and traditional reading instruction.

The mentioned research studies usually concur with Snow (2002a:32) who concludes that “because meaning does not exist in text but must be constructed from the text by the reader, instruction of how to use reading strategies is necessary to improve
comprehension‖, and Pressley (2001) who states that “[t]he case is very strong that teaching ... students to use a repertoire of comprehension strategies increases their comprehension of text”. As clear as the message from research into comprehension strategies may be, comprehension strategies instruction is still not widespread (Pressley, 1998:127), even in countries such as the United States where the concept of reading strategies is a familiar one. Where comprehension is taught teachers generally claim that they are “still not sure how to teach comprehension” (Liang & Dole, 2006:742-743) and are often not aware of existing comprehension instructional frameworks for teaching.

Reading strategies are concerned with reading comprehension, are dependent on the reading process and must be applied as an integrated part of reading instruction in order to make sense and fully achieve their worth. This study aims to contribute to reading comprehension instruction in South Africa by providing a framework for implementing reading strategies in grade 4 - 6 and identifying a set of core, ‘starter’ strategies which can form a basis for future continued strategy instruction.

3.7.1 Skills vs. strategies

Although terms such as “skilled readers” and “repertoire of strategies” could imply the use of a set of skills, it is important to point out that teaching reading strategies is not the same as teaching reading skills. Dole et al. (1991:242) identify four distinctions between skills and strategies. Firstly, there is a difference in intention: strategies emphasise intentional and deliberate plans controlled by the reader, or as McNamara et al. (2007:470) put it: “strategies, unlike skills, are conscious and generally effortful [and] ... also purposeful”. A good reader will decide which strategy to use, when to use it and how to adapt it to a particular text. Skills, on the other hand, imply a more automatic, subconscious routine (Koda, 2004:210) which follows a set pattern applied in a certain manner. Secondly, there is a cognitive difference between strategies and skills: strategies emphasise reasoning which requires readers to use critical thinking abilities as they construct and reconstruct evolving meanings from the text. Skills, on the other hand, tend to be associated with lower levels of thinking and learning and imply rote learning and application.

A third difference between strategies and skills is flexibility. Strategies are inherently flexible and adaptable and can be modified by the user to fit different texts for different purposes. Skills, at least in reading pedagogy, represent consistency and
rigidity in their application. Lastly, there is a difference in awareness between strategies and skills. Good readers are aware of whether they understand what they are reading, and if they are not, are able to “repair” the situation. Skills assume that through repeated practice and drill readers will automatically apply the skills they learn to whatever they read, without the possibility of the intentional or conscious use of the skills. In essence, skills are applied the same way each time without conscious thought, whereas strategies are applied consciously and adapted to a particular situation (Block & Duffy, 2008:21). For example, word recognition, an essential skill for reading success, is learned until it becomes automatic. By contrast, a strategy, for example predicting, is applied differently in each reading situation because each reader brings a different purpose and different prior knowledge to the situation.

3.7.2 Reading strategy instruction research

Pressley (1998:114) states that research into reading strategies first began to gather momentum in the late 1970s, and that since then there have been three “waves” of research on comprehension strategies instruction. The first comprehension instructional packages of the early 1980s were based on processes used by skilled readers. Various studies were performed on skilled readers of all ages to identify the strategies they use during reading.

The first wave as described by Pressley (1998) can be summarised as a period during which researchers identified and validated individual strategies that could be used before, during and after reading. The underlying assumption of research during this period was that learners were not already using strategies when they read or that if they were, they were not applying them systematically or completely, and the conclusion of research during this period was that learners could be taught to use strategies effectively. Reading strategies that were validated by research in this period included Activating Prior Knowledge, Identifying Main Ideas, Constructing Mental Images, Analysing stories into their Story Grammar Components, Question Generation and Summarisation (Pressley, 1998:115).

The second wave of research into reading strategies occurred mainly during the 1980s and 1990s and can be summarised as models of thinking which proposed that good readers used multiple strategies at the same time. The focus of research in this period was on teaching ‘repertoires’ of comprehension strategies. A well-known study
from this period was done by Palinscar and Brown (1984) which introduced the concept of reciprocal teaching, and included teaching the use of four specific reading strategies, namely Prediction, Questioning, Clarification and Summarisation (Pressley, 1998:117; Palinscar & Brown, 1984). Reciprocal teaching is based on the premise that the teacher initially will demonstrate and model the use of the four strategies, but with the aim of relinquishing control to the learners as soon as possible through the appointment of learners as ‘teachers’ during the process. A characteristic of the reciprocal teaching method is that the four strategies are always used in the same order, i.e. there is a rigid sequence. Research into the use of reciprocal teaching garnered much support, but while various studies showed impressive results in learners’ individual cognitive processing and use of self-questioning, the results in standardised comprehension tests were less impressive. Pressley (1998:117) draws the conclusion that the success of reciprocal teaching is increased when there is more direct instruction of the four comprehension strategies (i.e. more and longer involvement by the teacher).

Direct methods were proposed during the 1980 to 1990s period as reading strategy instructional methods during the first and second wave, and involve “scaffolding” of learning: continued support by the teacher until learners achieve independence. Instructional methods included Direct Instruction and Direct Explanation. There is, however, a subtle difference between Direct Instruction and Direct Explanation. Direct Instruction comprises the step-by-step training of a strategy. The strategy is first demonstrated by the teacher who then provides ample opportunity for practice and feedback. In the Direct Instruction method success in learning the strategy “is expected” (Almasi, 2002:44) and generally this methodology is deemed effective for teaching single strategies, because the instruction method is more “skill-based” and while learners may be able to describe and use a strategy accurately at the end of the training process, they may not necessarily know when or how to apply the strategy independently.

The Direct Explanation method is very similar to the Direct Instruction method. The teacher also begins by explaining the role and use of strategies, and then models their use by the thinking aloud protocol (TAP). TAPs are used to model comprehension processes such as making predictions, linking the text content with prior knowledge, monitoring comprehension, and general assistance with word recognition or comprehension. Using TAP allows the teacher to explain the “declarative, procedural and conditional knowledge” associated with strategies
(Almasi, 2002:46). Thereafter the learners begin to apply the strategies to their own reading while the teacher constantly monitors the process, provides additional explanations and re-models a strategy where necessary until learners become increasingly independent.

The third wave of comprehension strategies research as described by Pressley (1998:119-120) involved the so-called educator-devised comprehension strategies instruction, or also known as transactional strategies instruction. This approach to comprehension strategy instruction can probably best be summarised as a combination of the reciprocal and direct explanation method (including scaffolding) with a focus on small-group instruction and learners’ discussion of their interaction with the text. A few important characteristics of transactional strategy instruction are the following: a repertoire of strategies is taught (which usually includes Prediction based on prior knowledge, Question Generation, Clarification, Mental Imagery, relating Prior Knowledge to text content and Summarisation), teachers model the strategies through the direct explanation approach, teachers constantly emphasise the importance of the use of strategies and strategy instruction is long term (at least a year or longer). Various studies (Anderson, 1992; Brown et al., 1996; Pressley et al., 1992, 1998) were performed using the transactional approach to teaching reading strategies with the use of control groups, and results showed that learners from the experimental groups “acquired more content from their daily lessons” (Pressley, 1998:121) and outperformed the control groups in standardised comprehension tests.

In summary, studies have established that without “explicit teacher explanation and intensive scaffolding assistance” (Block & Duffy, 2008:23) many poor readers fail to improve their comprehension. As discussed in 3.4, the National Curriculum Statement and its supporting documents only make passing reference to “reading strategies” and do not offer explicit guidance about comprehension instruction in general or reading strategy instruction in particular.

3.7.3 Strategy instruction: what, when & how

Since the start of research into reading strategy instruction during the 1970s, many individual strategies have been identified and recommended for reading comprehension instruction. The list of research-proven strategies has ranged from as many as 47 (Anderson, 1991:463) during the period up to the year 2000 (Block &
Duffy, 2008:22). Research has also ranged from teaching one strategy intensively to teaching many at the same time. Block & Duffy (2008) divide research-proven strategies recommended for teaching into two groups, namely 1978-2000 and post 2000. The first group contains 45 individual strategies, whereas the second group contains only nine individual strategies which have been researched and validated to be “highly successful since 2000” Block & Duffy (2008:22). By looking at the strategies recommended by a spread of researchers in the field of reading comprehension over a period of time, it is interesting to note both an absence of and an overlap in strategies recommended by the respective researchers in comparison to the aforementioned nine post-2000 strategies identified by Block & Duffy (2008:22). The differences and overlaps in strategies recommended by renowned researchers emphasise that many unanswered questions remain about reading strategy instruction. For example, research has not yet found ways to develop methods that enable teachers to implement strategy instruction in such a way that all strategies “unite to become a single comprehension process” (Block & Duffy, 2008:31). Nor has a way been found to present cognitive strategy instruction in such a way that education authorities agree to include it in all classrooms. Other questions that remain unanswered are the order in which strategies should be taught or at what stage which strategy should be taught. Should teachers build on skills taught in earlier grades (what if skills weren’t taught?) or simply teach what they think their learners ought to know in their present grade? If deciding to teach for the present, which strategies should be taught? How do teachers react to the changes required to their teaching methods? How can strategies be taught effectively in the absence of high-quality literature? One thing that has become clear through research is that the trend is currently towards “teaching fewer, rather than more” and “combining strategies” (Block & Duffy, 2008:24).

All these questions make the issue of strategy instruction particularly difficult. As pointed out in 3.1 little, if any, formal strategy for comprehension strategy instruction seems to exist in South African schools, despite the fact that results from systemic evaluations continue to point to a lack of reading comprehension skills (see 1.2). In 3.4 it is further pointed out that although some mention is made of ‘reading strategies’ in the RNCS, it is not done explicitly in the context of comprehension development. The lack of detail and guidance in the Curriculum regarding the implementation of reading strategies, as well as the previously stated concern about the Department of Education’s tendency to ‘orient’ rather than ‘train’ teachers on new concepts and methods is a concern.
3.7.4 Reading strategy instruction and teachers

An important issue surrounding strategy instruction – as touched on in 3.7.3 – is the impact of strategy instruction on teachers. Research seems to indicate that teachers have difficulty in implementing strategy instruction without professional development. Pearson & Gallagher (1983:339) claim there is “no … single best way of applying a strategy” and that teachers’ responses during strategy instruction are “less corrective” and “more suggestive”. Being ‘suggestive’ in giving feedback implies a higher skill level from the teacher, because the teacher cannot rely on a fixed set of responses from children. Pressley & Beard El-Dinary (1997) state that teachers feel that comprehension-strategies instruction “takes a great deal of classroom time” and that teachers require a “great deal of support to understand and implement comprehension-strategies instruction”. Block & Duffy (2008:28) claim that teaching teachers to teach comprehension is “much more difficult than … anticipated”, requires time and effort and must be “collaborative, gradual and sensitive to the changing contextual conditions in classrooms”.

Research not only indicates that teachers have difficulty in implementing strategy instruction without professional development, but also that while ample attention is paid to the professional development of teachers for teaching reading instruction, little, if any, attention is paid to the “professional development of comprehension instruction [own emphasis] and classroom teachers”, and coaching literature “tends to be focused on general reading instruction” (Sailors, 2008:647). In fact, Sailors (2008:652) claims that as far as studies for the professional development of teachers and comprehension instruction go, “there is not any”, and new teachers still enter schools “with the understanding of how to teach comprehension … based on how they were taught to read” (Sailors, 2008:653).

Generally it seems strategy instruction is not easily taken up by teachers; reasons for this non-uptake range from the additional time it requires to prepare a comprehension lesson to a change-resistant school culture, to lack of training for teaching reading comprehension. Since research seems to show that teachers find the implementation of strategy instruction hard it follows logically that the implementation of strategy instruction will require intensive teacher development and probably require considerable change in their instructional methods and approaches. With regard to teacher change Anderson (1997:332) contends that an “understanding of the affective and behavioural dimensions of change when teachers attempt to put
new instructional methods and curriculum materials into practice remains relevant” since teachers continue to be confronted with the challenge of new methods and curriculum materials “on a recurring basis”.

In this study a classroom intervention to develop reading strategy instruction implies teacher development and change, which in itself is a vast field of study. For the purposes of this project the intention here is to focus on the elements of teacher development and change from the perspective of reading strategy instruction.

3.7.4.1 Research on teacher development and change

Research shows that teacher change is inevitable; it is multifaceted, complex and ongoing, and the way an intervention/innovation is presented seems to be key to its continued application by teachers. Richardson et al. (1991:579) are of the opinion that “genuine changes will come about when teachers think differently about what is going on in their classrooms, and are provided with the practices to match the different ways of thinking”, but that even the provision of practices may not lead to implementation if teachers beliefs are not “congruent with the theoretical assumptions of the practice”. Richardson (1998) adds that teachers are needed who “approach their work with a change orientation: an orientation that suggests constant reflection, evaluation and experimentation” which enables them to “alter curricula on the basis of new knowledge and ways of knowing … and to change methods when research indicates more effective practice”. Teachers continue to adopt and implement new instructional practices and curriculum. As long as this is the case, there are “valid reasons for furthering our understanding of the change process … of the specific innovations in curriculum and instruction” (Anderson, 1997:362).

Considerable research exists on teacher change in terms of curriculum implementation. Early research seems to show a “dominance of theories of cognitive psychology” with a focus on how individuals’ beliefs and practices change (Kaasila & Lauriala, 2010:854). Richardson (1998) points out that early research about teacher change also seems to focus on teachers’ perceived resistance to change (usually when the change is advocated or demanded by another person) while more recent research seems to confirm that teachers undertake change “voluntarily” and “on the spur of the moment” although such changes may sometimes be based on unwarranted assumptions and “perpetuate practices based on questionable assumptions and beliefs” (Richardson, 1998).
Existing research about teacher change covers a wide range of issues which include:

- Studies about the difference in teachers’ attitude toward changes in low-SES versus high-SES communities. For example, Torff and Sessions (2009) found that teachers from low-SES communities tend to be more sceptical about opportunities for change than their counterparts from high-SES communities.
- Research about the effect of length of service and years of experience on teachers’ attitude to change opportunities, sometimes with different results. On the one hand Torff and Sessions (2008) claim that teachers’ attitudes to change are positive at the start of their careers, then stagnate slightly during the middle years of their careers and become more positive again towards the end, while Richter et al. (2011), on the other hand, conclude that older, more experienced teachers remain less interested in development and change throughout their career.
- Studies that investigate whether teachers from different grade levels (Elementary or Secondary school) or different subjects (English, Maths, Science) show different attitudes toward change (Torff & Byrnes, 2011).

Research also shows that models of teacher change try to account for the processes that characterize the change process. Research about teacher change models range from earlier versions which focused on discrete innovations in curriculum and instruction, to more recent organisationally-focused approaches that take social and cultural influences into consideration. Older research shows attempts at creating models for teacher change – usually in a specific sequence – against which subsequent curriculum implementations could be measured. For example, Guskey (1986) proposes a set sequence in the change in teachers’ classroom practices, student learning outcomes and teachers’ beliefs and attitudes based on the premise that most staff development programs and new implementations attempt to change teachers’ beliefs and attitudes before an intervention; Guskey proposes that teachers are only likely to change their beliefs and attitudes after changes in student learning outcomes are evident. A less innovation-focused approach to change is the Concerns Based Adoption Model (CBAM), described by Anderson (1997:331) as a “widely applied theory and methodology for studying the process of implementing educational change by teachers” and is concerned with “measuring, describing and explaining the process of change experienced by teachers involved in attempts to implement new curriculum and instructional practices”. The CBAM has three diagnostic dimensions: Stages of Concern (that describe teachers’ feelings and motivations about changes in curriculum or instructional practices), Levels of Use (related to teachers’ attitudes to
change) and Innovation Configurations (a concept that grew out of the recognition that teachers “rarely implemented the same innovation in exactly the same way (Anderson, 1997:336)).

More recent research does not always agree with the usefulness of set models of change, stating that such models often view change as a linear process of implementation and that while “the psychological view of teacher change is useful”, it fails to explain teacher change processes (Kaasila & Lauriala, 2010:854). More recent research also acknowledges the possibility of teachers being “curriculum developers” instead of merely “curriculum transmitters” who focus only on textbook pages and teacher guidelines (Shawer, 2010). Recent research seems to place an increasing emphasis on the cultural and situational factors and processes of social interaction and collaboration in teacher education and change, and an increasing acknowledgement that the “actual impact of teacher change and take-up of innovations is diluted by all of the other factors that support or hinder teachers from making change” (Smith & Gillespie, 2007:226). ‘Other factors’ could include teaching in culturally diverse settings and having to have knowledge of and address issues such as bilingualism and second-language development, the role of the first language and culture in learning, and how teachers’ own and learners’ attitudes and beliefs about language and culture affect learning (Clair & Adger, 1999). As is discussed in Chapter 6, it seems that issues such as multilingual classes, poor school attendance (learners’ beliefs about learning), culture of reading and teachers’ attitudes do have an impact on implementations (see 6.1.1, 6.1.2, 6.1.7 & 6.1.8).

Priestley (2011), in a statement that seems to lend some support to this study’s attempt at closing the gap between research and practice, describes the “gap between policy and practice, between innovation and the changes in social practices that occur in response to such innovation”. Priestley (2011:2), much like Richardson’s (1998) earlier comment, concurs that while teachers have often been cast as “barriers to change” policies have more recently been positioning teachers as “agents of change”. This study views teachers as positive agents of change and has sought to follow a collaborative approach in implementing the research intervention in order to close the gap between what research claims is necessary in classrooms and what teachers actually implement in their classrooms. In order to achieve a collaborative approach, this study aimed to focus on specific features in the intervention that would achieve as much teacher buy-in – and therefore, teacher change – as possible. These features are described in the following section.
3.7.4.2 Teacher change in this study

Research shows that “school practices remain remarkably persistent in the face of ... innovation” (Priestley, 2011:1) despite the fact that teachers are constantly subjected to innovation and change. Therefore, in order to ensure a link between teacher change and the objectives of this study, and to ensure that teacher took up reading strategy instruction as much as possible, a common thread was identified in the sources about teacher change that were consulted for this study: teachers tend to change, and implement change, when specific principles are adhered to in curriculum and instructional innovations. These principles are summarised below, and have been included in the design of the research intervention for this study (see 4.4).

Torff & Byrnes (2011:27) claim that implementations that scored higher ratings from teachers were “sustained and intensive” rather than short-term “one shot” implementations. They further conclude that a new implementation or innovation encourages teacher change if:

- the implementation shows teachers clear and positive benefits or effects to learners (Pressley & Beard El-Dinary, 1997) – this point relates to the objective (research question 3) of the measurability of reading strategy knowledge
- the implementation is meaningfully integrated into life at the school (Torff & Byrnes, 2011; Richardson, 1998; Gersten et al., 1997; Pressley & Beard El-Dinary, 1997; Guskey, 1986)
- the implementation is supported by the principal (Anderson, 1997)
- the implementation allows teachers some form of leadership role (democracy) as opposed to simply being ‘receivers’ of information (Torff & Byrnes, 2011; Anderson, 1997; Gersten et al., 1997)
- teachers are provided with the opportunity for hands-on, active learning (as opposed to listening inactively) (Torff & Byrnes, 2011)
- the implementation provides opportunity for collaborative learning (Torff & Byrnes, 2011; Richardson, 1998; Gersten et al., 1997)
- the implementation provides sufficient time for classroom implementation and includes adequate technical support (Torff & Byrnes, 2011; Pressley & Beard El-Dinary, 1997; Richardson, 1998; Richardson et al., 1991; Huberman & Miles, 1984)

As mentioned in Chapter 1, there is considerable speculation about the reason for the non-uptake of strategy instruction. In order to address at least some of the issues
related to the non-uptake/low uptake of strategy instruction, it was decided that this study would take a stance on a few important issues: to select a set of ‘starter’ strategies (see 3.7.5), to enable measurement of the selected strategies (see 4.5.1.4), and to provide sufficient information and sustained support for the selected strategies. In essence, the study’s intervention strived to adhere to all the bullet points listed on the previous page (see 4.4 for issues addressed by the intervention), while taking into account that the ultimate uptake of RSI depended on individual teachers and their willingness to accept support and change their practices.

3.7.5 Selecting strategies for implementation

Although it would be difficult to consult every source ever written about reading strategy instruction to compile a list of the reading strategies most often recommended by researchers, there are researchers who have done more work than others in reading strategy-instruction research. A selection of researchers whose work includes the recommendation of specific strategies is shown in Table 1, along with the research-based strategies they have recommended. The strategies common to two or more of the selected researchers are listed in column 3, while column 4 indicates which strategies were included in this study’s research intervention.

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Recommended strategies</th>
<th>Common strategies</th>
<th>Included in this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palincsar &amp; Brown (1984)</td>
<td>Predicting, clarifying, questioning, summarising</td>
<td>• Activating prior knowledge (use of background knowledge)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Predicting</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Identify story structure</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Mental imagery</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Inferencing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Monitoring</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Questioning</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Summarisation (identify main ideas)</td>
<td></td>
</tr>
<tr>
<td>Anderson (1991)</td>
<td>Monitoring, questioning, predicting, inferencing, use of background knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snow (2002a)</td>
<td>Identifying main ideas, questioning, self-questioning, paraphrasing, identify gist of text, identify main ideas, identify story structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressley (1997)</td>
<td>Activating prior knowledge, identify main ideas, mental imagery, analyse stories into story grammar, question generation, summarisation</td>
<td>• Activating prior knowledge</td>
<td></td>
</tr>
<tr>
<td>Block &amp; Duffy (2008)</td>
<td>Predicting, monitoring, questioning, imagery, lookbacks/re-reads, inferencing, find main ideas/summarise, evaluate &amp; synthesise</td>
<td>• Predicting</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Identifying main ideas</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Purpose for reading</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Research-based strategies and strategies used in this research
The seven intervention strategies (column 4 in Table 1) were selected for specific reasons. Firstly, they were selected to provide teachers with sufficient structure and guidance for attempting strategy instruction, since strategy instruction was deemed to be a new concept for the research teachers. Secondly, the intervention strategies were selected to address all phases of the reading process, in other words they were selected to address issues and activities related to Before Reading, During Reading and After Reading (much like the approach used during the ‘first wave’ of research into reading strategy instruction, as described by Pressley (1998) in 3.7.2). However, as will be shown in Chapter 6 when the recommended framework for strategy instruction is discussed, while this study utilises the Before, During and After ‘categorisation’ of the reading process, the three phases are merely used as a guideline for grouping reading strategies for the purposes of this study; the phases are not regarded as a finite view of the reading process.

Although Identifying Text Type and Identifying the Purpose of reading are not strategies that appear in Table 1, I deemed them important for the Before Reading process, particularly in view of the fact that this study supports a socio-cultural view of reading, which means that reading comprehension is regarded a “complex interaction between text factors, including text structure [own emphasis] and content and reader factors such as background knowledge and strategy use” (Prater, 2009:613). Studies have shown that familiarity with text genre impacts readers’ ability to make meaning. For example, Langer et al. (1990) showed, among other things, that learners generally knew less about non-fiction genres and were able to comprehend and recall information better from fictional texts.

The importance of learners understanding the purpose for reading is primarily about teaching learners that different purposes for reading require different types of focus from the reader (Moreillon, 2007:98). In other words, reading for learning will require a different level of concentration to reading for pleasure. However, establishing a purpose for reading is also influenced by the socio-cultural context (see 2.4) - if learners come to school from a community where reading is not part of the culture (for whatever reason), it becomes the school’s responsibility to create a culture of reading. By establishing a purpose for reading different types of texts or reading in different situations (for learning, pleasure or information) before the reading process commences should serve to assist in increasing learners motivation to read by showing that reading is not merely part of an “instructional process”, but that it indeed forms part of a larger “cultural process” (Gee, 2005).
The intervention strategies were, therefore, selected and divided as follows:

<table>
<thead>
<tr>
<th>Reading phase</th>
<th>Reading strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before reading</td>
<td>• Identify Text Type</td>
</tr>
<tr>
<td></td>
<td>• Identify Purpose for reading</td>
</tr>
<tr>
<td></td>
<td>• Activating Prior Knowledge</td>
</tr>
<tr>
<td></td>
<td>• Predicting</td>
</tr>
<tr>
<td>During reading</td>
<td>• Monitoring</td>
</tr>
<tr>
<td>After reading</td>
<td>• Clarifying</td>
</tr>
<tr>
<td></td>
<td>• Questioning</td>
</tr>
<tr>
<td></td>
<td>• Summarisation</td>
</tr>
</tbody>
</table>

Table 2: Reading phases & related reading strategies

In summary: the Before Reading strategies aim to create a foundation for the During Reading and After Reading phases by enabling leaners to unlock the knowledge they bring to the reading process from their own contexts (Activating Prior Knowledge, and to some extent Predicting) while at the same time linking their ‘own contextual knowledge’ to a reason/motivation for reading (Identifying Purpose for reading) and to the guiding characteristics of the text type - fiction or non-fiction (Identifying Text Type).

### 3.7.6 Conclusion

This chapter started off by providing a view of reading instruction in South Africa, followed by an analysis of the Revised National Curriculum Statement from a theoretical perspective and a critical perspective. This was followed by a view of the curriculum based on its focus on reading comprehension, language of instruction, multilingualism and method of language instruction. After a discussion of the focus that reading comprehension should (but does not yet) receive in language and other education, the attention turned to the issue of reading strategies: how they differ from skills, what existing research has contributed to the knowledge base of reading strategy instruction, and, based on existing research, which strategies should be taught, as well as when and how they should be taught. The chapter concluded by describing the strategies used in and recommended by this study, and an explanation for how the selected strategies contribute to laying a foundation for the reading strategy instruction framework to be recommended in the final chapter. Since the research intervention used in this study is effectively based on the aforementioned chapters, attention will now be turned to the design and implementation of the research and intervention.
Chapter 4

Research Design

At its most general level research design can be taken to mean “all issues involved in planning and executing a research project” and a way of “situating the researcher in the empirical world and connecting the research questions to data” (Punch, 2009:112). Research “issues” typically involve an overall research methodology (qualitative, quantitative or a combination of the two), a research paradigm (e.g. post-positivist, constructivist, pragmatic) on which the interpretation of data is based and research instruments for gathering data (e.g. observations, interviews, questionnaires).

Different resources recommend different ways of approaching the research design. For example, Creswell (2003) identifies three issues that he considers central to the design of research (epistemology, methodology and instruments), whereas Punch (2009) identifies four issues that form the basis of research design, namely methodology, conceptual framework, source of data and method of collecting data. Maxwell (2005:33) is of the opinion that a researcher’s starting point should be to develop a conceptual framework since such a framework is “the system of concepts, assumptions, expectations, beliefs, and theories that supports and informs your research”. A conceptual framework also serves to inform the research paradigm (philosophical positions, such as positivism, constructivism, pragmatism), which in turn tends to be associated with specific research methodologies (qualitative, quantitative, mixed methods).

The rest of this chapter will describe the research approach and questions, position the study within a specific paradigm and its related research methodology, followed by the necessary information about the research participants. Once this has been done, the qualitative and quantitative instruments used for gathering data, as well as how the gathered data was analysed and interpreted, will be discussed in detail. The chapter will conclude with a discussion of ethical issues pertaining to the study.
4.1 Conceptual framework

The research design for this study flows from the conceptual framework as discussed in Chapter 1 (see Figure 1) where it was pointed out that this study has been positioned in an attempt to bridge the gap between research (known theory) and practice (known reality). In Chapter 2 information was provided in support of known theory (see 2.1 – 2.7) and in Chapter 3 a view was provided of the known practice (see 3.1 – 3.7), with a specific focus on reading, reading comprehension and reading strategy instruction. As the views of known theory and known practice were created, issues and trends specific to reading strategy instruction arose which directed this study towards not only the appropriate research approach, but also towards the choice of research paradigm and research methodology. In the sections that follow the research approach, aims and questions will be positioned in the context of the conceptual framework, after which the research paradigm and methodology will be discussed.

4.1.1 Research approach

After studying existing research in reading strategy instruction, a few issues were identified which needed to be taken into consideration in conducting this study. The first set of issues is related to second-language (L2) strategy instruction, and influenced this study in a broader sense, for example in choosing the research school and participants (see 4.3). These issues are:

- while considerable research into L2 reading strategy instruction has been performed, very little research seems to have included African language (and Afrikaans) L1 speakers,
- the English L2 learners in most of the existing research tend to be beginner learners (i.e. there seems to be less research on advanced learners), and
- existing research does not seem to adequately address L2 speakers from a multilingual background but rather tends to focus on bilingual learners.

The second set of issues is related to the content and method of existing research, and had a more specific and direct influence on the intervention content and approach. These issues are:

- Despite considerable research on the subject, reading strategy instruction shows a low uptake by teachers (there is a gap between research and practice),
• There does not seem to be a definitive reading strategy, combination of strategies or instructional method for strategy instruction, and

• The majority of reading-strategy research has been researcher driven, i.e. the research intervention is implemented by the researcher; the teacher is uninvolved or treated as a participant.

In general research does not seem to have a very impressive track record when it comes to translating research findings into practice on a sustainable and permanent basis. Despite a mass of research into best-practice methods based on educational psychology, many instructional methods in schools still reflect those proposed during the 1970s and 1980s (McInerney, 2005:596). The South African Department of Education’s National Curriculum Statement does not seem to offer much guidance in this regard either (see 3.5.2 & 3.6). While researchers claim to ask questions that will improve current teaching methodologies, there seems to be a breakdown in the process between documenting research findings and convincing teachers, schools and policymakers to implement them. Clay (1991:16) states that “researchers rarely ask the questions which teachers want answered … and educators rarely work to implement the implications of particular research findings”. Clay further claims that researchers (theorists) are too “general” in their documenting of advances in understanding, and that researchers and teachers alike would be served better if practice and theory were considered together in order to inform each other.

In terms of the fact that there does not seem to be a definitive reading strategy, combination of strategies or instructional method for strategy instruction: considerable research exists on reading strategy instruction, and research-tested reading strategies have been refined from more than 45 strategies to a more manageable nine (Block & Duffy, 2008:22), yet there still does not seem to be a definitive approach or method for teaching reading strategies. In fact, two of the common denominators in existing research seem to be that strategy instruction is beneficial to poor readers, and when taught, must be taught as frequently as possible (see 3.7). The lack of explicit direction has benefits, however: essentially there is no ‘wrong’ way to teach strategies, or stated differently, any way could be the right way – as long as it is done. However, research seems to indicate that teaching reading strategies “requires time and effort” and is “more difficult than … anticipated” (Block & Duffy, 2008:28), and that teachers seem reluctant to take it on without being provided with some structure and sufficient ongoing support - and evidence that it is making a difference.
In terms of researcher-driven vs. teacher-driven interventions, Pressley (2003) points out that when someone other than learners’ teachers (e.g. researchers themselves) provides instruction “experimental external validity is threatened” and that “such teaching rarely resembles what goes on in actual classrooms”. Furthermore, it could be said that if researchers drive an intervention, two contrasting things occur: the researchers, as subject matter experts, can conceivably ensure greater research ‘success’ by implementing the teaching strategy him-/herself, but since this leaves teachers largely uneducated and uninvolved, little or no transfer of reading strategy instruction skills (or a motivation to teach these skills) is bound to take place – which brings one back to the first point highlighted on the previous page: the low uptake of research-proven methods in practice.

This study aims to address the three issues discussed above by placing itself in the gap between research and practice. While the study sees itself as “in the gap”, it is not an isolated position: in other words, its position is influenced by known theory (existing research) and the known reality (existing teaching practice).

4.1.2 Research conditions

In 4.1.1 two sets of issues were identified which influenced the conceptual framework of this study, and by association, were identified as conditions for this research. In summary, the two sets of issues were:

- At a broader level: L2 strategy instruction research and the choice of school for this research - existing reading strategy research does not seem to include adequate research on learners with an African (including Afrikaans) first language, and learners from a multilingual (vs. bilingual) background,
- At a more detailed level: despite considerable reading strategy research, teachers do not seem to take on reading strategy instruction, there does not seem to be a definitive strategy or method of strategy instruction and most reading-strategy research seems to be researcher driven (vs. teacher driven).

This study incorporated the issues mentioned above in the form of the following prerequisites:

(1) By selecting a school in a multilingual community (learners in the research school spoke English and Afrikaans and in some instances also isiXhosa) and selecting classes where learners receive instruction in what is effectively their L2,
(2) By making the research intervention teacher-driven with ample researcher support. Support was provided by providing teachers with a structured programme of selected reading strategies, providing basic knowledge of concepts pertinent to the strategies and their instruction and ensuring ongoing support throughout the research intervention which included weekly visits to the school for the duration of the intervention (except during examination weeks),

(3) By providing sufficient structure in the research intervention to enable the measurement of the transfer of reading strategy knowledge in learners. Measuring comprehension remains a contentious issue; from issues such as task types and the language in which the test is conducted, to social learning views that comprehension test questions by their very nature imply that the text has a certain meaning. In this study, however, the aim was to provide a measurement of strategy knowledge transfer (as opposed to an increase in comprehension) as visible evidence to teachers that their teaching did have an effect on learners’ knowledge. The measurement of progress (albeit the measurement of knowledge transfer vs. knowledge effect) was deemed important because the lack of evidence of improvement in learners has been identified as one of the main reasons why teachers do not take on research-proven methods (Gersten et al., 1997; Pressley & Beard El-Dinary, 1997).

4.1.3 Research questions

In view of the research aims, the following overarching question was formulated: How can reading strategy instruction be introduced and supported to encourage its application by teachers and learners? The following sub-questions were formulated to guide the study:

1. What influences teachers and learners in taking on reading strategy instruction?
2. How do teachers take on reading strategy instruction?
2.1 How do teachers and their instructional practices change from the start to the end of the research intervention, if at all?
2.2 How do teachers’ instructional changes affect learners’ awareness/uptake of reading strategies?
3. To what extent is the transfer of reading strategy knowledge measurable?
Together the research questions and aims indicated the need for a research paradigm that was sufficiently flexible to incorporate “methodological pluralism” and enable “many approaches in collecting and analysing data, rather than subscribing to only one way” (Creswell, 2003:12). What follows in section 4.2 is a short description of the concepts and reasoning which informed the choice of paradigm and methodology for this study.

4.2 Research paradigm & method

Research data, once collected, must be interpreted according to some kind of paradigm in order to provide context and boundaries to the interpretation. While the terms “paradigm” and “methodology” are used separately by some and considered to be interlinked by others (De Vos et al., 2005:358), for the purposes of this research they will be considered linked. “Paradigm” will be defined as a “way of viewing one’s research material” (De Vos et al., 2005:4), and “methodology” as the method of data gathering, whether quantitative or qualitative or both.

4.2.1 Research paradigm

Researchers have long been engaged in heated debate about the value and superiority of qualitative and quantitative research and the paradigms commonly associated with these research methods (Johnson & Onwuegbuzie, 2004; Tashakkori & Teddlie, 1998). Along with these discussions comes the ongoing debate about the nature and reality of knowledge and the realisation that humans are “culturally and historically situated creatures” (Swoyer, 2008) and that since research is strictly a human endeavour, it would seem that no interpretation of data or knowledge can ever be uniquely correct because this would presuppose the existence of an “authentic and original” interpretation (Scott & Usher, 1999:26).

Generally the positivist paradigm underlies the quantitative approach. The positivist paradigm, commonly associated with early research into reading (see 2.1.1), requires a researcher to seek “absolute truth and knowledge” (Creswell, 2003:7) and the concern is with generalisation, prediction and the need for control. On the opposite end of the spectrum is the constructivist paradigm (including post-positivism and interpretivism) which underlies the qualitative approach. The constructivist paradigm accommodates a more practical mode of reasoning where methodology does not consist of following “invariant procedures and rules of method”; instead the
The significance of context and meaning is recognised, and the concern is with “understanding, illumination and the need for communication” (Scott & Usher, 1999:30-31). The constructivist paradigm further uses ordinary life and experiences to understand the social construction of meaning, and enables researchers to recognise and acknowledge that their own background shapes their interpretation (Creswell, 2003:8; Scott & Usher, 1999:25).

Over the past few decades, however, researchers have begun to agree on the fact that qualitative and quantitative methods could be compatible and that more could, in fact, be learnt about a particular topic if the strengths of the two methods are combined while at the same time compensating for each other’s weaknesses (Punch, 2009:290). Onwuegbuzie & Leech (2005:383) mention the example that using quantitative data can compensate for the fact that qualitative data typically cannot be generalised, while the inclusion of qualitative data can help explain relationships discovered by quantitative data. This ‘mixed approach’, which uses both quantitative and qualitative data-gathering methods, has generally come to be associated with the pragmatic paradigm (De Vos et al., 2005:359). According to the pragmatist view knowledge “arises out of actions, situations and consequences rather than antecedent conditions”, and there is a concern with “what works” and solutions to problems (Creswell, 2003:11). The research problem is considered more important than the methods, or as Punch (2009:19) states, taking a pragmatic approach is to “begin with research questions that need answers and then to choose methods for answering them”. Patton (2002:71) states that pragmatism “increases the concrete and practical methodological options” available to researchers, and allows the researcher to use methodological appropriateness as the primary criterion for methodological quality. Creswell (2003:12) characterises pragmatic research as the absence of committing to one system of philosophy or reality as research that is concerned with the “what” and “how” and as an approach that agrees that research always occurs in social, historical, political and other contexts and that knowledge is contingent upon the specific situation. Knowledge as a ‘social product’ is underscored by the critical realist paradigm (Bhaskar, 1975) which states that all knowledge comes about through the transformation of pre-existing knowledge, or what Bhaskar (1998:16-17) calls interaction between transitive objects (theories, paradigms, models, facts, speculations, linguistic conventions, beliefs, hypotheses and the like, i.e. knowledge produced by mankind) and intransitive objects of knowledge, “real things and structures, mechanisms and processes, events and possibilities of the world ... for the most part quite independent of [mankind]”. In a way, this study is
suited to the critical realist paradigm in that it seeks to bridge the gap between known theory (transitive knowledge) and known practice (arguably a form of intransitive knowledge and objects).

Mouton and Marais (1990:169) state that the issues investigated in the social sciences tend to be so “enmeshed” that a single approach simply cannot succeed “in encompassing human beings in their full complexity”. Qualitative research is often viewed as “anecdotal” by policy makers and funders who prefer “hard evidence” before agreeing to participation in a project (De Vos et al., 2005:358). At the same time, quantitative research cannot accurately and fully reflect or account for the human element in social science research. The research questions and aims of this study are a good example of this complexity – on the one hand the study aimed to observe the ‘how’ and ‘why’ of reading strategy instruction to determine a framework for implementation in schools, but at the same time it aimed to provide measurable evidence of knowledge transfer of a set of reading strategies; ‘hard evidence’ that could conceivably act as visible encouragement for teachers to teach what is effectively an invisible skill. Using a paradigm that seeks to bridge the gap between theory and practice enabled this flexibility by making the research aims and questions rather than the methodology the priority.

4.2.2 Research method

In keeping with the use of a paradigm that seeks to bridge theory and practice, this study used a mixed-method methodology, which incorporated the use of both qualitative and quantitative data-gathering methods, or stated differently, used both numeric and text information. A mixed-method approach assumes that “collecting diverse types of data best provides an understanding of the research problem” (Creswell, 2003:21). Creswell (2003:211-212) recommends that the following be considered when using a mixed-method approach: implementation (sequence of collection of respective data types), priority (which approach will be given greater priority) and integration (how the data types will be mixed).

In this study, the collection of quantitative and qualitative data was done sequentially using a method that can best be described as a variation of what Creswell (2003:216) calls the Sequential Transformative Strategy (STS). In the STS there are two distinct collection phases, one following the other; however, either method (quantitative or qualitative) may be used first and the results of the two phases are
integrated during the interpretation phase. An important feature of the STS is that it is guided by a theoretical perspective, be it a conceptual framework, ideology or advocacy, which is deemed more important in guiding the study than the use of the methods alone.

This study, however, used three sequential data collection phases: first quantitative data (see 4.5.1) were collected, then qualitative data were collected (see 4.5.2), followed by a second collection of quantitative data. The first quantitative data collection entailed two sets of information: independent, reliable baseline data about participants’ reading age and reading comprehension ability, and measurement data from the experimental group (see 4.3.3) for comparison before and after the research intervention. These quantitative data were collected before teachers implemented the research intervention (see 4.4) in their respective classes. At the same time teachers were given an information session about the research intervention, and once they were ready to implement the intervention the qualitative data were collected over a period of 15 weeks (two school terms) through classroom observations, unstructured discussions with teachers and samples of learners’ work. At the end of the 15 weeks, a final set of quantitative data, in the form of a strategy-transfer test (see 4.5.1.4), was collected from both the experimental and control group.

The data-gathering process can be illustrated as follows:

![Data-gathering sequence & integration](image)

Although this study leans toward qualitative research and the bulk of the data was collected in Phase 2, the inclusion of two quantitative collection phases was driven by the study’s conceptual framework which focuses on bridging the gap between known theory (research) and known reality (practice). Therefore, in order to adequately
address the research questions and aims, in particular the ability to provide accurate baseline data of learners’ abilities and some evidence of learners’ progress to encourage the continued use of the intervention, sufficient quantitative data were necessary. During the integration phase data types were not mixed so much as used to inform each other (as indicated by the direction of the arrows in Figure 2). Qualitative data was used to explain relationships in the quantitative data, whereas quantitative data provided reliable information about participants, tangible evidence of knowledge transfer during the research intervention and possible explanations for individual learners’ results.

In summary: this study, therefore, utilises a critical realist paradigm and mixed-method methodology, not because it pretends to be a perfect example of the use of either paradigm or methodology, but because this approach was necessitated by the research conditions (see 4.1.2) and research questions (see 4.1.3).

4.3 Research participants

The research participants comprised four teachers and 163 learners in Grades 4 to 6. All participants were conveniently selected (Creswell, 2003:164), in other words, teachers and learners were left in their naturally-occurring grade classes. This was done so as not to upset school routines, teachers’ schedules and teachers’ and learners’ comfort zones, and to ensure that research observations were done in environments familiar to learners.

4.3.1 School

The school chosen for the research (hereafter referred to as the research school) is a primary school in the Western Cape Province. The research school was chosen for two main reasons: (1) it includes classes that provide instruction in English as Home Language for learners from a predominantly Afrikaans-speaking community, and (2) the school serves a community which can be described as representative of a large portion of South African learners who live in difficult socio-economic circumstances. The reasons were important for this research because the research incorporates an awareness of multilingualism in teaching and, therefore, required a school that taught learners in a language that might differ from their home language. It was further felt that the research needed to be conducted in circumstances which could be said to apply to a large majority of school-going learners in South Africa. The intention was that the framework proposed at the end of the research should be generically
applicable and based on circumstances that could be replicated in most South African schools.

The research school is situated in an area known for its high levels of crime and poverty. School fees per learner for schools in the area range from R60 to R238,50 per year; the research school’s annual school fee per learner amounts to R122,50. According to the school principal there are considerable levels of unemployment and illiteracy amongst learners’ parents and/or guardians and general participation by parents is low. The school serves a predominantly Afrikaans-speaking community and has up to five classes per grade. Each grade level has at least one class which uses English Home Language (EHL) as LoLT.

School attendance at the research school is often dictated by outside circumstances in the community. For example, during winter on rainy days school attendance drops by up to 50% in some classes, or if any type of festivity is seen to pose a threat to children’s safety, learners are kept at home. This was evident on Guy Fawkes Day in 2009 when no learners attended school due to concerns that celebrations might lead to irresponsible and dangerous behaviour. The majority of learners also stop attending school as soon as final examinations at the end of a school term have been completed, irrespective of the number of school-going days (or weeks) left in the official school term.

The school is generally poorly equipped and a high level of security is maintained, particularly after school hours, due to persistent burglaries and vandalism. The school has a library but it is small and poorly stocked, and is generally kept locked. The school has a computer room courtesy of the Western Cape Education Department’s Khanya Project; each grade class from the Intermediate and Senior Phase spends one period per week in the computer room. Although the principal tries to enforce the “half an hour reading” period as proposed by the National Reading Strategy, this time is often used to catch up on other school work, particularly Maths. Access to age-appropriate reading material is often a problem; some classes don’t have enough reading books for every learner, and in other classes teachers create their own reading material or use articles from newspapers and magazines.
4.3.2 Teachers

Four teachers from Grades 4 to 6, one male and three female, agreed to participate in the research. All teachers are educated to diploma or undergraduate degree level and regard Afrikaans as their home language. Only the classes in Grades 4 to 6 with English Home Language (EHL) instruction were used in the research for the reasons stated in 4.3.1. In 2009, however, the Grade 5 level contained two EHL classes, which enabled the use of a control group and experimental group in Grade 5. In keeping with the research aims, a control group was included to provide a comparison of quantitative data with the experimental group. The teacher from the Grade 5 control group was, therefore, part of the research to the extent that her learners were used for control data purposes; however, neither she nor her learners participated in the research intervention.

4.3.3 Learners

A total of 163 learners from Grades 4 to 6 participated in this research. Of the 163 learners 128 received the research intervention while the remaining 35 comprised the control group. Of the 128 learners who received the intervention, one of the Grade 5 classes (consisting of 33 learners) comprised the experimental group and the second Grade 5 class (consisting of 35 learners) acted as the control group. The use of a control group was possible because, although two ESL grade 5 classes existed, one of the two teachers was a department head who had already been given additional duties; the principal was, therefore, reluctant to add to her workload by asking her to participate in the research intervention. For research purposes the two groups were named 5E (experimental) and 5C (control) respectively. The entire group of 163 learners ranged between the ages of eight and 13 years. As mentioned earlier, learners were left in their allocated grade classes to ensure their routines were not upset and that they received instruction from their own teacher.

The final compilation of groups and their participation in the respective data-gathering phases were as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
<th>Data collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>25</td>
<td>24</td>
<td>49</td>
<td>Phase 1 &amp; 2</td>
</tr>
<tr>
<td>5E</td>
<td>18</td>
<td>15</td>
<td>33</td>
<td>Phase 1, 2 &amp; 3</td>
</tr>
<tr>
<td>5C</td>
<td>22</td>
<td>13</td>
<td>35</td>
<td>Phase 1 &amp; 3</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
<td>26</td>
<td>46</td>
<td>Phase 1 &amp; 2</td>
</tr>
<tr>
<td></td>
<td><strong>85</strong></td>
<td><strong>78</strong></td>
<td><strong>163</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Grouping of learners and data-gathering participation
4.4 Research intervention

In view of the research conditions (see 4.1.2) and the issues highlighted in the conceptual framework the research intervention was designed in a particular way; this will be discussed below in more detail to provide context for the discussion of the research instruments (see 4.5).

Pressley (2003) warns that researcher-driven interventions can lead to teaching that “rarely resembles what goes on in actual classrooms”. In view of this statement as well as the low take-up of strategy instruction by teachers (see 4.1.1), it was hoped that by actively involving teachers in the intervention from the outset would familiarise them with strategy instruction in a supportive environment and increase the chances of sustained strategy instruction after the intervention. The intervention was, therefore, designed to be teacher driven rather than researcher driven.

However, a teacher-driven intervention meant that not only would teachers need guidelines, sufficient information and structure, but that they would also need continued guidance and support. As stated in the Western Cape Education Department’s Literacy and Numeracy Strategy 2006-2016 (2006:4) post-1994 education departments’ approach to merely orient teachers in new concepts and then leave them unsupported “does not produce the desired results”. Traditional models of professional development usually rely on direct instruction during short in-service courses provided by outside experts or departmental representatives. Teachers are told about a recommended practice or method and it is demonstrated to them. Once back in their classes they are expected to implement the new method in their classrooms. According to Sailors (2008:636) such professional workshops “are not without fault”, an opinion shared by Sandholtz (2002:816) who states that traditional workshops do not view teachers as active participants, and the content tends to be decontextualised and “separate from teachers’ daily work”. Van Keer & Verhaeghe (2005:455) showed that although short in-service teacher training courses had much the same effect on learners’ results as long-term coaching of the same subject, teachers experienced “more workload with regards to settling in the innovations” after receiving only short in-service courses. Therefore the research intervention for this study utilises a combination of an information session and continued support.

Gersten et al. (1997:467) state that teachers will “accept and implement effective ways of teaching once they know what they are”, whereas Sailors (2008:646) states
that teachers “need proof that the topics and practices ... actually work on their students”. In view of the need for more detailed information, I held an information session with participating teachers to provide background knowledge of reading strategies, clarify their value and place in reading comprehension instruction, and how to incorporate the teaching of strategies into daily teaching. I also provided teachers with a booklet containing basic information about each reading strategy contained in the intervention, examples of lesson plans for teaching strategies and sample lesson handouts. In addition, I gave teachers a laminated checklist (see Addendum A) for use during their lessons. The checklist divided the research intervention strategies into Before Reading, During Reading and After Reading categories, ensuring that teachers had the ‘safety’ of some type of lesson structure by knowing which strategies to use when. My classroom observations were based on an Assessment Schedule (see Addendum B), which in turn was based on the teacher checklist.

In essence, I designed the research intervention to ensure that:

- Teachers were provided with sufficient reading strategy information and resources as well as continued support to enable reading strategy instruction. Huberman & Miles (1984:273) emphasise that the success of new innovations depends almost entirely on the “amount and quality of assistance” that users receive once a new process is under way.
- Teachers were treated as professionals (as opposed to ‘participants’) with knowledge and experience – they were encouraged to provide input, criticism and feedback about the intervention as often as possible.
- Teachers were given sufficient structure, in other words, they were given clear guidelines (a start and an end) for teaching reading strategies, but within a flexible framework and without expecting too much too soon.
- The intervention was not too large in scope, but also not too narrow, and fit within “the details of day-to-day classroom instruction” (Gersten et al., 1997:469).
- Quality literature was used in comprehension instruction – for this purpose I gave each participating teacher a teacher’s guide with age-appropriate reading material for their respective grades.
- The intervention did not replace what teachers do, but rather enhanced what they were already doing.
- Writing was included as end product (consolidation) of strategy instruction (and to serve as research evidence of strategy transfer).
A final, important aspect of the intervention is that it had to enable the measurement of the transfer of knowledge of reading strategies upon completion of the intervention. I included the measurement requirement - in keeping with the research conditions (see 4.1.2) and the overall conceptual framework of the study – by developing a strategy-transfer test (see 4.5.1.4) which consisted of five questions aimed at testing learners’ knowledge of the reading strategies contained in the research intervention.

4.5 Research instruments

In keeping with the mixed-method research method, both quantitative and qualitative instruments were used to gather data for this study.

4.5.1 Quantitative instruments

The Department of Education’s Systemic Evaluation Report (2005) and the WCED’s Literacy and Numeracy Strategy (2006) both point to low levels of reading competence in South African schools. In addition to this, the principal and teachers at the research school repeatedly described their learners as “poor readers”. However, despite survey results and educators’ opinions, it was decided to obtain an independent view of the research participants’ reading and comprehension skills before the start of the research intervention. This was done for two reasons: to provide accurate, independently-measured baseline data of learners’ reading and comprehension abilities for possible comparison of reading age upon completion of the research, and to ensure that any statistical analysis that could be performed on this data could be considered as realistic and reliable as possible. This comparison of reading age was, however, not done because the Burt Word Reading Test may not be repeated within six months of the first test. The research was conducted over a period of five months and concluded at the end of November 2009, which meant that a next measurement would only have been possible after the summer holidays in January of the following year. The concern was that the combination of the long break from school and minimal contact with literacy events during this time would enhance the so-called “summer effect”: a drop in learner literacy levels due to an extended holiday (Downey, Von Hippel & Broh, 2004). It was deemed probable that a second measurement of reading age in January 2010 would not have reflected the retained benefit (if any) of the research intervention.
Four tests were conducted to gather quantitative data: during Phase 1 (before the start of the intervention) I administered a word reading test for determining reading age, a Cloze test for determining comprehension levels, and an exploratory strategy test (the latter was administered to the experimental group only). After the research intervention (Phase 3) I administered a strategy-transfer test for measuring transfer of strategy knowledge in the experimental group.

4.5.1.1 Burt Word Reading Test

In general, what can be gained from existing research into children’s reading comprehension is that word recognition, prior exposure to print, language skills and the role of memory “all seem to contribute to comprehension in some way” (Goff, Pratt & Ong, 2005:583). Word recognition, in particular, is mentioned in most research into reading comprehension. However, which aspect of word recognition, i.e. phonological vs. orthographic, is the more determining factor is an issue that researchers seem to disagree about. Barker, Torgesen & Wagner (1992:335) state that in many cases “phonological knowledge and skill can be used to identify words that have never before been encountered in print”. Generally there seems to be consensus that while a reader can possess adequate phonological skills, comprehension is increased by the presence of sound orthographic skills because the latter is what enables the creation of meaning. In other words, simply being able to decode words according to their sound-symbol relationship does not always lead to meaning, whereas if sound phonological skills are accompanied by sound orthographic skills, comprehension is usually improved. While researchers may not agree which aspect of word recognition is more important, it seems clear that “decoding and word recognition are prerequisite skills for successful comprehension” (Pretorius & Ribbens, 2005:139).

For this reason, a word reading test was administered to the study’s participants in conjunction with a comprehension test (see 4.5.1.2). The Burt Word Reading Test was used to determine participants’ reading age and for comparing their measured reading age with their real age. Apart from the Burt Word Reading Test, a variety of other word reading tests exist, such as the Graded Word Reading Test (developed by Schonell in 1966), the San Diego Quick Assessment (developed by LaPray and Ross in 1969), the Wide Range Achievement Test (developed by Jastak & Jastak in 1978) and the St Lucia Graded Word Reading test (developed by Andrews in 1973). The tests are specifically used to measure word recognition, are usually administered
individually to readers between six and thirteen years of age and generally end after a specific number of consecutive words have been misread. A study by Smith and Harrison (1983) which compared the Schonell, San Diego and Wide Range Achievement tests, showed that “mean scores were consistent” on two of the tests and “all correlation coefficients were significant at the .01 level”, and state that the tests can be used alternatively “as informal measures for determining reading level estimates”.

The Burt Word Reading Test (see Addendum C) was chosen for this study because it is a free test and easily obtainable, and because it is recommended by the assessment and evaluation handbook from which the Cloze tests (see 4.5.1.2) used in this study were taken. The Burt Word Reading Test is an individually administered test which provides a measure of a reader’s word recognition skills. The test is appropriate for use on learners between the ages 6 to 13 years. The Test Card consists of 110 words printed in decreasing size of type and graded in approximate order of difficulty. The test is administered to one learner at a time; the learner is required to read the words on the Test Card aloud without any help from the test administrator. Once the learner has misread or failed to read 10 consecutive words, the test administrator will stop the test and add the number of words read correctly to obtain a total out of 110. The learner’s Burt Age is then determined by using the Burt Word Reading Test rubric.

Used in conjunction with other information, the Burt Word Reading Test enables researchers and teachers to form a broad estimate of a learner’s reading achievement to aid decisions about appropriate teaching and reading materials, instructional groupings, etc. In addition, the Burt Word Reading Test can prove useful as an indicator of possible wider reading problems. However, it is important to emphasise that reading is a complex set of skills and that the Burt Word Reading test provides a measure of only one aspect of reading, namely word recognition (Wildcats Tracks, 1981). Or, as Clay (1993b) states, word reading only caters for “word-level cues” (word specific information and sound-symbol correspondences) while reading should ideally use word-level cues in conjunction with “sentence-level cues” to develop readers’ use of multiple cues for solving problems while reading. In the context of this study the Burt Word Reading Test was administered to obtain reliable
baseline data about the research participants’ word reading ability\textsuperscript{12}. By using the Burt Word Reading Test it was possible to ensure that data about learners’ word reading ability were as recent as possible and based on a recognised, independent measurement. In addition to this it was possible to determine the gap (if any) between the measured reading age and learners’ real age, and to determine whether the gap between the two ages (where a gap existed) had any correlation with their existing comprehension abilities as measured by the Cloze test (see 4.5.1.2).

I administered the Burt Word Reading Test over the course of four days (one day per grade class – 4, 5E, 5C and 6) in the research school’s staff room. The adding of final scores (counting the number of correct words to obtain a total) was double checked by a separate person.

4.5.1.2 Cloze Test

Since the Burt Word Reading Test only measures learners’ ability to decode (recognise) words, a Cloze test (see Addendum D1 – D3) was used to gain a view of learners’ comprehension levels before the research intervention and to determine if there was any correlation between the Burt Word Reading Test results and the Cloze results. Dupuis (1980:33), in reference to measuring reading comprehension for literature, claims that where standardised reading tests “correlate highly with Cloze scores, sufficient variance remains unaccounted for to suggest that Cloze tests provide some different information from reading tests”. Cloze tests have been proven to be highly correlated with virtually any other type of language test, as well as with tests of virtually any language skill and component (Bachman, 1994:177). Cloze tests have been used to “assess, predict and diagnose reading instructional levels” (Evans & Balance, 1977:110). Francis (1999:27) states that because Cloze tests constitute “self-contained, connected and complete segments of discourse” they “could be considered an integrative measure of reading”. Cloze tests do, however, have their critics, for example Shanahan, Kamil & Tobin (1982) who question whether Cloze tests are a sufficient measure of intersentential comprehension. However, criticism of Cloze tests is usually limited to a single characteristic that critics feel is lacking or not adequate; in general Cloze tests have been accepted as fair indicators of comprehension. Consensus remains that, if the measurement of reading

\textsuperscript{12}At the time of writing this dissertation, the school principal had indicated her intention of having the Burt Word Reading Test administered by teachers every year for obtaining measurable data about learners’ reading skills.
comprehension is a main focus, the use of more than one method of testing is “preferable” when attempting to measure “a construct like reading comprehension” (Alderson & Banerjee, 2002). However, a Cloze test was deemed acceptable in this study for the following reasons:

- The aim of the test was not an in-depth analysis of learners’ comprehension levels, but rather a general indication of reading comprehension by means of an independent measure that could be used as baseline data and for determining a correlation with learners’ reading and Burt ages. Cloze tests have also, to some extent, been shown to measure readers’ use of reading strategies (Ashby-Davis, 1985:587).
- Cloze tests require a “constructed response” (Wolf, 1993:474) compared to a selected response like in multiple choice tests - which could be said to provide a fair indication of a reader’s comprehension, since the missing word must be inferred from the text, rather than from eliminating other possible answers or guessing (as in multiple response tests). In other words, as stated by Francis (1999:27), Cloze includes the “simultaneous application of vocabulary knowledge, grammatical competence, sentence-level decoding and passage-level comprehension”.

I used a separate age-appropriate Cloze test for each grade. To ensure that the texts’ readability levels were measured according to similar standards, I used existing Cloze tests from an assessment and evaluation handbook published in New Zealand and used by Stellenbosch University in teacher training classes. The handbook contains Cloze tests based on age-related ‘tracks’. The tracks contain reading texts based on readability and interest ages. Since children in New Zealand go to school when they turn five (and learn to read in their home language), it meant that the readability ages indicated in the handbook would differ for learners in a South African environment. Because of this age difference in Grade 1, as well as the Western Cape Education Department’s (WCED) literacy survey results (see Addendum E) and the research school teachers’ opinion of their learners’ reading abilities, the Cloze texts selected for this research were chosen to fall one year under the expected average age of South African grade 4 to 6 learners. If learners scored exceptionally high on the test, the intention was to administer a second Cloze test at a higher reading age. The answers were scored according to the Acceptable Answer method, which counts any contextually acceptable answer as correct (Brown, 1980:311).
4.5.1.3 Reading strategy exploratory test

I compiled and administered a reading strategy Exploratory Test (see Addendum F) to the experimental group before the start of the research intervention to obtain data for comparison of strategy knowledge transfer by the *same* group of learners after the implementation of the research intervention. The Exploratory Test (ET) was deemed ‘exploratory’ because its questions tested learners’ knowledge of reading strategies before they had been exposed to the research intervention. Furthermore, it was impossible to predict to what extent the teachers who participated in the research would take on the research intervention, how many strategies they would be able to train during the research period (and, therefore, how many should be included in the ET) or what the quality of their instruction would be. To this end, the ET included a question for some of the reading strategies contained in the research intervention, with the intention of using any data about strategy/-ies covered by both the ET (before the intervention) and strategy-transfer test (after the intervention) for direct comparison of learners’ strategy knowledge transfer. After the implementation of the research intervention, when it was possible to create a strategy-transfer test (see 4.5.1.4) which accurately reflected what had been covered by teachers during the intervention, I was able to use three measures (Monitoring, Questioning & Summarisation) from the ET for direct comparison with the same measures in the STT. This provided reliable data about strategy knowledge transfer in the experimental group.

4.5.1.4 Reading strategy-transfer test

I designed a reading strategy transfer test (see Addendum G) for measuring transfer of reading strategy knowledge in the experimental group. The data from this test was used for two purposes:

1. For direct comparison of experimental group learners’ strategy knowledge before and after the research implementation. This was done by comparing the scores for three measurements (Monitoring, Questioning and Summarisation strategies) from the ET with the scores for the same measurements in the Strategy Transfer Test (STT).

2. For comparing the STT measurements between the experimental and control groups to determine the extent of strategy knowledge transfer in the experimental group.
It should be reiterated at this point that the objective of the ET and STT was to measure transfer of strategy knowledge. The objective was not to measure the effect on or increase of reading comprehension levels.

Five measurements were taken in the STT. These included identifying the text type, creating a title for the text, monitoring, questioning and summarisation. I created a rubric for each of the measures, with scoring based on a study by Hart & Speece (1998) but significantly simplified to cater for Intermediate Phase learners. The scoring for each measurement was designed to allow a range of answers; for measurements which effectively could be scored as ‘correct’ or ‘incorrect’ a total score of 1 (No Response) to 3 (Correct answer) was used (see Table 4). For measurements (Questioning and Summarisation) where answers could not always be scored as simply ‘correct’ or ‘incorrect’, a score of 1 (No response) to 5 (Answer completely applicable) was used.

The five measurements were scored as follows on the rubric:

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Score</th>
<th>Explanation for score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text type (TT)</td>
<td>1</td>
<td>No answer</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Incorrect</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Correct</td>
</tr>
<tr>
<td>Title (T)</td>
<td>1</td>
<td>No title</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Title present but not completely relevant to text</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Title relevant to text</td>
</tr>
<tr>
<td>Questioning (Q)</td>
<td>1</td>
<td>No response/responses are not questions</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Questions present but not completely related to text</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Questions relevant and text based only</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Questions relevant and text based &amp; knowledge based</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Questions relevant and knowledge based only</td>
</tr>
<tr>
<td>Summarisation (S)</td>
<td>1</td>
<td>No response/response is not a summary</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Summary present but not completely relevant to text</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Summary partially captures gist/sentences directly from text</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Summary partially captures gist/own words used</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Summary accurately captures gist, own words used</td>
</tr>
<tr>
<td>Monitoring (M)</td>
<td>1</td>
<td>No answer/incorrect answer</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Answer related to monitoring</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Correct answer</td>
</tr>
</tbody>
</table>

Table 4: Rubric for Strategy-transfer Test

All STT responses (test papers) were scored separately and independently by two other persons (one of whom is a Grade 5 teacher from a different school) after I had done my own scoring. No significant number of differences occurred in the two sets of scores; however, where a difference did occur I discussed it with the raters (to
To determine the inter-rater agreement for each of the measurements in the STT an Intraclass Correlation test was performed on the scores for the three raters (the issues surrounding the scoring process are discussed in more detail in 5.2). Bearing in mind that '1' represents complete agreement between raters, the following intraclass correlation coefficient (ICC) agreements for each of the five measurements in the STT were obtained:

<table>
<thead>
<tr>
<th>Measurement</th>
<th>ICC agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questioning (Q)</td>
<td>0.70</td>
</tr>
<tr>
<td>Summarisation (S)</td>
<td>0.60</td>
</tr>
<tr>
<td>Text Type (TT)</td>
<td>0.96</td>
</tr>
<tr>
<td>Monitoring (M)</td>
<td>0.70</td>
</tr>
<tr>
<td>Title (T)</td>
<td>0.82</td>
</tr>
</tbody>
</table>

Table 5: Interrater reliability results for Strategy Transfer Test

The ICC agreement figures indicate the degree to which raters scored the same for a particular measurement. If one were to apply Portney & Watkins’ (2000) ICC agreement index, Table 5 indicates that except for one measurement (Summarisation at 0.60) all measurements’ scores show a strong (0.7-0.8) to almost perfect agreement (>0.8).

4.5.2 Qualitative instruments

Three qualitative instruments were used to gather data, namely classroom observations, which formed the bulk of the qualitative data, unstructured interviews with teachers and samples of learners’ work.

4.5.2.1 Classroom observations

I spent a total of two school terms at the research school gathering observational data. This entailed weekly visits to the research school, which included unstructured discussions and meetings with teachers and both formal and unstructured classroom observations. In the end 18 formally recorded classroom observations were used as observational data for this research. Classroom observations of the research intervention were based on an Assessment Schedule (see Addendum B). Bearing in
mind that the control group (group 5C) was not observed because they did not receive the research intervention, the 18 observations were obtained as follows: four from Grade 4, twelve from Grade 5E and two from Grade 6.

4.5.2.2 Unstructured interviews

I conducted ad hoc, unstructured interviews with teachers over the course of the 15-week research intervention period. The interviews were conducted one on one with individual teachers, sometimes directly after a class observation, and sometimes as part of maintaining regular contact with teachers during informal visits to the school. Two group meetings were held with the three intervention teachers to give them an opportunity to speak about their progress with and any issues related to the research intervention. All meetings and interviews were unstructured and observations from these meetings were restricted to hand-written notes because teachers were hesitant to speak freely when being recorded.

4.5.2.3 Learners’ work

Samples of work (see Addendum H) from learners in the experimental group were taken at intervals during the research intervention to determine whether progress was being made in the use of reading strategies. Samples were restricted to the experimental group because the bulk of the observed research training interventions took place in this group (group 5E).

4.6 Data analysis & interpretation

Since this study utilises the mixed-method methodology, both qualitative and quantitative data were gathered, thereby necessitating different methods of analysis.

4.6.1 Statistical analyses of quantitative data

As described in 4.5.1, four quantitative instruments were used in this study to gather data, namely the Burt Word Reading Test, a Cloze test, an Exploratory Test (ET) and Strategy Transfer Test (STT). The first three tests were used to obtain baseline data about the research participants before the start of the intervention, and the Strategy Transfer Test was used to measure transfer of strategy knowledge – as taught during the intervention - in the experimental group upon completion of the intervention, and for comparison with similar measurements in the ET data for before-and-after
measurements within the experimental group. The following statistical analyses were performed on the data from the respective instruments:

A Mixed Model Repeated Measures ANOVA was used to compare learners’ reading age (as measured by the Burt Word Reading Test) with their real age, and to compare their reading age with their comprehension ability (as measured by the Cloze test). The comparison between reading age and comprehension ability was performed within and between the respective grade groups to establish whether gaps – where they occur – not only exist between learners, but also between grade groups.

A One-way ANOVA was used to compare the measurements from the ET and STT for the learners in the experimental group. A comparison was done for the three measurements obtained from both tests, namely Questioning, Summarisation and Monitoring. The results of this comparison provided an indication of whether transfer of strategy knowledge as taught during the intervention took place.

In addition to the ANOVAs a Pearson correlation was used for determining whether a correlation exists between learners’ measured reading ages and their comprehension ability.

However, for all their value, the abovementioned three tests mainly report on whether an intervention made a difference; in order to report on the extent of the difference made by an intervention, a different type of test is necessary. For this reason an Effect Size test (refer next section) was also be performed on the quantitative data. A spreadsheet calculator based on Thalheimer and Cook (2003) was used to determine the effect size, using the mean scores obtained from the One-way ANOVA.

4.6.2 Effect size or statistical significance

When communicating the findings of studies there is a tendency to focus on whether or not some intervention had the intended effect, and less attention to how much of an effect the intervention had (Valentine & Cooper, 2003). For example, it may be possible to show that a reading intervention increased reading scores more than the usual reading instructional techniques, but it is often more difficult for researchers to determine how much of a difference the intervention made. Researchers need to know if the intervention’s effects are large or small, meaningful or trivial. For a while
now, data analysts have been advising researchers in the behavioural sciences that, in addition to a test for statistical significance, an effect size measure should also be reported with their findings (Olejnik & Algina, 2000). The reason for this request, according to Olejnik & Algina (2000:241) is that “statistical significance does not imply meaningfulness” and that “small differences can be statistically ‘significant’ because of a large sample size”. Since the data from which statistical analyses for this study can be drawn was taken from a relatively small sample (n=163), I deemed it sensible to include an effect size measure.

Using Cohen’s $d$ an effect-size analysis (see 4.6.1) was performed on the ET and STT measurements to compare the differences (if any) in learners’ scores before and after the research intervention. Cohen’s $d$ measures the meaningfulness of an intervention and reports its results as the size of the effect of the intervention, as well as the percentage of change recorded from the comparison to the treatment, for example small ($≥ -0.15$ and $<.15$), medium ($≥ .40$ and $<.75$), very large ($≥ 1.10$ and $<1.45$), etc. Thalheimer and Cook (2003), whose spreadsheet calculator was used in this study, utilise the following effect size scale for the relative size of Cohen’s $d$:

- Negligible effect ($≥ -0.15$ and $<.15$)
- Small effect ($≥ .15$ and $<.40$)
- Medium effect ($≥ .40$ and $<.75$)
- Large effect ($≥ .75$ and $< 1.10$)
- Very large effect ($≥ 1.10$ and $< 1.45$)
- Huge effect ($> 1.45$)

They further use the following scale for the relative size of the percentage change from comparison to treatment:

- Huge decrease $<-75$
- Very large decrease ($≤ -50$ and $≥-75$)
- Large decrease ($≤ -30$ and $≥-50$)
- Medium decrease ($≤ -15$ and $≥-30$)
- Small decrease ($≤ -5$ and $≥-15$)
- Negligible change ($≤ -5$ and $<5$)
- Small increase ($≥5$ and $<15$)
- Medium increase ($≥ 15$ and $<30$)
- Large increase ($≥ 30$ and $<50$)
- Very large increase ($≥50$ and $<75$)
- Huge increase $>75$

It must be pointed out that effect size analyses have their critics who question whether effect size measures actually contribute to a better understanding of research results. These critics claim that what practitioners really want to know, are answers to questions such as “What can the participants of the treatment do because of the intervention that the control group cannot do?” (Olejnik & Algina, 2000:277).
Such questions raise validity issues that depend on the meaning of the measures used, the heterogeneity of the populations being compared, the specific levels of the variables studied, the strength of the treatments, and the range of treatments. However, since no composite scores – total scores which measure underlying variables - were calculated for this study, a reliability test was not deemed applicable.

4.6.3 Analysing the qualitative data

Fraenkel & Wallen (2008:476) state that the process of analysing qualitative data requires a researcher to take a holistic view of all gathered data before segmenting and reassembling them into categories. Various approaches for ‘segmenting and reassembling’ qualitative data have been developed over time. For example, Miles & Huberman (1984) use a three-tiered approach of analytic progression that reduces a complete data set into broad categories, and then into themes, while Tesch (1990:95-96) describes qualitative data analysis as segmenting the whole data set into “relevant and meaningful units” followed by the categorisation of the data segments. A third similar approach is offered by Boeije (2010:78) who suggests the analysis of data into “fragments” that relate to similar themes where after distinctions are made between relevant fragments and sorted into groups or categories.

The analysis and interpretation of this study’s qualitative data were guided by principles from the three abovementioned researchers, namely Miles & Huberman (1984), Tesch (1990) and Boeije (2010), all of whom propose what is effectively a three-step process in analysing data. According to Patton (2002:437) the researcher has two primary sources to draw from in organising the analysis once data collection has ended: (1) the questions generated during the conceptual and design phase of the study (research questions) and (2) analytic insights and interpretations that emerged during data collection. My analysis of the qualitative data gathered during this study was directed by the study’s conceptual framework (see Figure 1) and the research questions (see 4.1.3).

It should be pointed out that because the focus of this study is the teaching of reading comprehension (reading strategy instruction), the aim was not to perform a detailed word-by-word discourse analysis of learner and teacher utterances; where any discourse analysis occurs it will focus on identifying changes in a particular teacher’s instruction or to contrast two teachers’ instruction with each other.
4.7 Ethical issues

Permission for performing research in the research school was obtained from the Western Cape Education Department (see Addendum I), and ethical clearance for the research project in general was obtained from the Stellenbosch University Ethics Committee (see Addendum J). Once the Western Cape Education Department had granted permission the research school’s principal was approached. The principal agreed to the research and identified the teachers from the respective grades who would be involved in the research. The identified teachers were briefed about the scope of the research and their required participation, where after their verbal and written consent was obtained. The three teachers who participated in the research intervention (Grade 4, 5E and 6) each signed an Informed Consent Form (see Addendum K). The 163 participating learners were also given an Informed Consent Form (see Addendum L) for their parent/guardian’s signature.

4.8 Conclusion

This chapter has described how the research design was informed by the study’s conceptual framework and the research approach and research aims which flowed from the framework. It further described how qualitative and quantitative data were gathered. However, data do not speak for themselves and must be analysed and interpreted by the researcher to determine what answers they can provide. Qualitative data, in their richness and complexity gained from concentrating on the study of human behaviour, are open to multiple perspectives and practices in their analysis (Punch, 2009:170). Quantitative data, on the other hand, are analysed using statistics. Henning, Van Rensburg & Smit (2004:101) state that “the true test of a competent researcher comes in the analysis of the data, a process that requires analytical craftsmanship and the ability to capture understanding of the data in writing”. The following two chapters, therefore, will describe the results of the analysis of data gathered for this study. One chapter will be dedicated to reporting on the results of the quantitative data, and the other on the results of the qualitative data.
Chapter 5

Research Results: Quantitative Data

This chapter will detail the results of the analysis and interpretation of quantitative data gathered before and after the research intervention. Although the data-collection phases as described in Chapter 4 (see 4.2.2 and Figure 2) involve the collection of qualitative data in between the two quantitative data-collection phases, the qualitative data will be discussed separately in Chapter 6. This separate discussion is being done for ease of reading (the discussion of qualitative data is rather extensive) and because this study places greater focus on the qualitative data. In this study the quantitative data were gathered for two purposes: to provide independent baseline information about participants and specific measurements before the start of the intervention, and to provide data for comparison with similar measures after completion of the intervention. It should, therefore, be seen as framing the discussion in Chapter 6.

The sequence of the analysis and interpretation of data in this chapter and Chapter 6 can be illustrated as follows:

Figure 3: Analysis and interpretation of data
5.1 Analysis and interpretation of Phase 1 Quantitative Data

All calculations in this chapter are based on the number of learners present for each test at the time the test was administered. The total number of learners present for the respective tests does not, therefore, always equal the total number of learners that participated in the research (as indicated in Table 3). Where results from different tests were compared with each other, only the data from learners who had scores for both tests were used.

*The importance of the quantitative data in this study must not be overemphasised – the role of the quantitative data is limited and serves a very specific purpose.* The aim of the quantitative data gathered in Phase 1 was to obtain basic, independent, measurable data about the word recognition and comprehension ability of learners who participated in the research intervention. While the results of the quantitative data gathered in Phase 1 and 3 are discussed in some detail, the main function of the quantitative data is to frame the qualitative data by (1) providing a credible base of information about learners’ abilities from which to make reasonable deductions during the analysis of qualitative data from Phase 2, and (2) for comparison with quantitative data gathered in Phase 3 to show the effect (if any) of the intervention. The discussion of the effect (if any) of the intervention relates to research question 3 (measurability of reading strategy knowledge) and also aims to provide data which could demonstrate to teachers whether the intervention had ‘clear and positive benefits or effects’ (Pressley & Beard El-Dinary, 1997) for their learners (see 3.7.4.2). Such a perspective is important to provide additional impetus for teacher change.

Data gathering in Phase 1 included the use of three tests: the Burt Word Reading Test (see 4.5.1.1), a Cloze test (see 4.5.1.2) and the Exploratory Test (see 4.5.1.3). Please note that although the data for the Exploratory Test (ET) were gathered in Phase 1, they were gathered for the purpose of comparing ET measurements with similar measurements from the STT. Therefore, the ET data will be analysed together with the STT data in section 5.2. Section 5.1 will discuss the analysis of the data gathered from the Burt Word Reading test and Cloze tests.
5.1.1 Burt Word Reading Test results

The Burt Word Reading Test was performed on 139 learners in the four grade classes (see 4.3.3) identified for participation in the research. This included the control group, group 5C, who did not receive the intervention (the use of the control group is justified and discussed in 4.3.3, and all data for this group will be shaded in grey in tables). The Burt Word Reading Test was performed to obtain reliable baseline data of learners’ approximate reading age for possible repeated measurements, to determine the difference between learners’ real age and their Burt age, and to determine whether there was a correlation between learners’ reading age and comprehension ability (see 5.1.2).

Once captured and calculated (see 4.5.1.1) the Burt Word Reading Test ages were deducted from learners’ real ages to determine the difference between the two ages; this difference will hereafter be referred to as the reading age difference (RAD). An example of the reading age difference calculation is provided in Table 6. Learners are identified as “L” followed by the unique number allocated to each learner at the start of the research.

<table>
<thead>
<tr>
<th>Learner</th>
<th>Real Age</th>
<th>Burt Age</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>L57</td>
<td>10.17</td>
<td>10.17</td>
<td>0.00</td>
</tr>
<tr>
<td>L80</td>
<td>10.42</td>
<td>12.00</td>
<td>-1.58</td>
</tr>
<tr>
<td>L81</td>
<td>12.33</td>
<td>6.92</td>
<td>5.42</td>
</tr>
</tbody>
</table>

Table 6: Calculation of reading age difference

From the examples in Table 6 it is clear that the greater the negative value obtained by deducting learners’ Burt age from their real age, the better the learner’s word reading skill was deemed to be, in other words, the closer the learner’s real age was to his measured Burt reading age, and vice versa. Conversely a positive difference indicated a low(er) level of reading skill. Once the RAD had been calculated for all participating learners, a Mixed Model Repeated Measures ANOVA (n=283, F(3,140)=18.9, p<0.01) was used to determine the mean RAD per group. A summary of the results of these calculations is illustrated in Table 7 (the complete results are provided in Addendum M).

---

13 A detailed discussion of the value of and reason for using the Burt Word Reading Test is provided in 4.5.1.1.
<table>
<thead>
<tr>
<th>Group</th>
<th>Age Type</th>
<th>N</th>
<th>Mean age per age type</th>
<th>Standard Deviation</th>
<th>Mean reading age difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Real</td>
<td>46</td>
<td>10.08</td>
<td>0.63</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td>Burt</td>
<td>42</td>
<td>8.38</td>
<td>2.10</td>
<td></td>
</tr>
<tr>
<td>5C (control)</td>
<td>Real</td>
<td>35</td>
<td>10.87</td>
<td>2.81</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>Burt</td>
<td>35</td>
<td>9.27</td>
<td>2.47</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>Real</td>
<td>31</td>
<td>11.33</td>
<td>0.77</td>
<td>2.36</td>
</tr>
<tr>
<td></td>
<td>Burt</td>
<td>31</td>
<td>8.97</td>
<td>1.73</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Real</td>
<td>32</td>
<td>12.30</td>
<td>0.61</td>
<td>1.38</td>
</tr>
<tr>
<td></td>
<td>Burt</td>
<td>31</td>
<td>10.92</td>
<td>1.87</td>
<td></td>
</tr>
</tbody>
</table>

Table 7: Mean age totals and mean reading age difference per group

Table 7 shows that in all grade classes there was a significant difference in the mean reading age for each group ($F(1,135)=73.8, p<0.01$) with a mean RAD of almost two years in three groups (Grade 4, 5C and 6) and 2.36 years in one group (Grade 5E, the experimental group). Figure 4 provides an illustration of the difference in Burt and Real Age between the groups.

![Figure 4: Mean Burt Age and mean Real Age for groups](image)

The mean reading age (mean real age + mean Burt age / 2) for each grade group was also calculated and compared to determine whether differences (if any) were the same between different grades. The mean reading age per grade was determined to
be to the following: 9.27 years for Grade 4, 10.07 and 10.15 years for Grade 5C and 5E respectively, and 11.62 years for Grade 6.

The mean reading ages can be illustrated graphically as follows:

![Figure 5: Comparison of mean group ages](image)

From Figure 5 it is clear that there is an increase in the mean reading age between Grade 5 and Grade 6 which is not evident between Grades 4 and 5. As can be seen from Figure 5, the difference in the mean reading age between Grade 4 and Grade 5 is 0.88 years, whereas the difference between Grade 5 and Grade 6 is 1.5 years. Since the measurements were done in the middle of the year (July), it is difficult to speculate whether the difference in mean reading ages between Grade 5 and 6 is the result of instruction in Grade 5 (which could have been an argument had the measurements been taken at the start of the research year), or whether the difference is due to instruction in Grade 6 (which could have been argued had the measurements been taken at the end of the research year).

Having determined the individual learners’ reading age difference as well as the mean reading age difference between the participating grade groups, and the mean reading age per group, a comparison was done with the results of the Cloze test to determine whether a correlation existed between reading and comprehension skills.
5.1.2 Cloze Test results

As explained in 4.5.1.2, separate age-appropriate Cloze tests were given to each grade group to obtain some indication of their comprehension skills before the start of the research intervention, and to determine whether there was any correlation between learners’ comprehension ability (as measured by the Cloze test) and their word reading skills (as measured by the Burt Word Reading Test). Once the tests had been scored the average score per grade was calculated (in Excel). The average score per grade, displayed as a percentage, is provided in Table 8, along with the mean RAD per group. The raw scores and totals for all participants are provided in Addendum N.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Average Cloze score as a %</th>
<th>Mean reading age difference in years</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>46</td>
<td>40.4</td>
<td>1.7</td>
</tr>
<tr>
<td>5C (control)</td>
<td>35</td>
<td>47.9</td>
<td>1.6</td>
</tr>
<tr>
<td>5E</td>
<td>30</td>
<td>44.8</td>
<td>2.36</td>
</tr>
<tr>
<td>6</td>
<td>44</td>
<td>46.9</td>
<td>1.38</td>
</tr>
</tbody>
</table>

Table 8: Average Cloze Test score

As is evident from Table 8, there is no significant difference in the average Cloze score of the respective groups. Based on these results no correlation between learners’ comprehension ability (as measured by the Cloze test) and their word reading skills (as measured by the Burt Word Reading Test) seemed possible.

5.1.3 Relationship between reading age difference and comprehension

Overall the comparison of RAD and Cloze test scores showed a relationship between a positive-value RAD (weak/er reading skills) and low Cloze test scores (low/er levels of comprehension). The low Cloze score = high positive-value RAD trend was evident throughout in comparisons between individual learners’ scores. The opposite also generally seemed to hold true: the strong(er) the reading skill (i.e. the higher the negative RAD value), the higher the comprehension test score.

Table 9 lists examples from each relationship per group to illustrate this point. The top four examples represent learners with a high negative-value RAD, while the bottom four examples represent learners with a positive-value RAD.
Table 9: Cloze Test score vs. reading age difference

<table>
<thead>
<tr>
<th>Group</th>
<th>Learner</th>
<th>Cloze score %</th>
<th>Reading age difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>L9</td>
<td>0</td>
<td>6.17</td>
</tr>
<tr>
<td>5C (control)</td>
<td>L90</td>
<td>40</td>
<td>4.75</td>
</tr>
<tr>
<td>5E</td>
<td>L50</td>
<td>20</td>
<td>4.33</td>
</tr>
<tr>
<td>6</td>
<td>L121</td>
<td>45</td>
<td>3.08</td>
</tr>
<tr>
<td>4</td>
<td>L26</td>
<td>72</td>
<td>-1.67</td>
</tr>
<tr>
<td>5C (control)</td>
<td>L104</td>
<td>80</td>
<td>-2.33</td>
</tr>
<tr>
<td>5E</td>
<td>L51</td>
<td>80</td>
<td>-0.58</td>
</tr>
<tr>
<td>6</td>
<td>L139</td>
<td>90</td>
<td>-1.00</td>
</tr>
</tbody>
</table>

However, despite the fact that the trend of a low Cloze score = high positive-value RAD and vice versa held true for the majority of learners, there were some exceptions to both the aforementioned trends. For example, L17 (Grade 4) with a positive-value RAD of 5.17 scored 78% in the Cloze test, and L21 (Grade 4) with a negative-value RAD of -1.42 who scored only 34% in the Cloze test. Furthermore, there were examples of learners with similar RAD values who showed vast differences in their Cloze results. For example, L58 & L60 (both from Grade 5E) both measured a negative-value RAD of -0.17 but scored 90% and 45% respectively in the Cloze test.

In order to obtain a better view of all learners’ Cloze scores in comparison to their RAD values, a Pearson correlation was performed on the data and presented in a scatter plot, as illustrated in Figure 6.
In Figure 6 (r=-0.58, p<0.01) each of the circles represents an individual learner in the four groups (4, 5C, 5E and 6) for whom both a real age and Burt age were measured. The Y axis represents the score (as a percentage) obtained in the Cloze test, whereas the X axis represents the reading age difference (RAD). On the X axis ‘0’ (zero) represents learners whose real age and Burt age are the same (there were only two). The positive and negative numbers on either side of zero on the X axis represent the range of reading age differences measured in the data, namely from as high as a negative-value RAD of 3 years (i.e. learners whose Burt reading age is three years higher than their real age), to a positive-value RAD of nearly seven years (where learners’ Burt reading age is up to seven years lower than their real age). The diagonal red line represents the simple regression line of RAD on the Cloze score; the negative slope of the line indicates the negative relationship between RAD and Cloze scores which - as discussed in 5.1.1 – show that the greater the positive-value RAD, the lower the Cloze score.

Although the majority of learners with a (high) positive-value RAD generally obtained a low Cloze score, there were a number of exceptions which, at least as far as the data for this research are concerned, seems to indicate that reading comprehension is determined by more than word reading skill, and conversely, that strong word reading skills do not necessarily ensure good comprehension (also refer 4.5.1.1 and 4.5.1.2).
In summary, the quantitative data gathered in Phase 1 show the following:

- The majority (76%) of learners who participated in the intervention showed a positive-value reading age difference (i.e. their reading age was lower than their real age), which means that the majority of learners read at a level that was generally lower than what it should have been in their respective grades and for their respective ages.

- Large positive reading age differences were associated with lower comprehension ability and vice versa. Furthermore, as indicated by the significant correlation of $r=-0.58$, $p<0.01$ (see Figure 6) there seems to be a fairly conclusive link between poor word reading skills (as measured by the Burt Word Reading Test) and poor reading comprehension (as measured by the Cloze test). However, it is important to emphasise the possibility of the presence of other factors that could influence comprehension – factors that emerged during the interpretation of the qualitative data gathered in Phase 2.

This concludes the analysis of the Phase 1 quantitative data which – for this study - represent an independent measurement (independent from Departmental statistics and teachers’ general opinion of learners’ literacy) of learners’ word reading skill and comprehension ability.

### 5.2 Analysis and interpretation of Phase 3 Quantitative Data

Data gathering in Phase 3 was done through the use of a Strategy Transfer Test (STT) which was designed to measure the transfer of knowledge of strategy use after teachers had completed the intervention. As described in 4.5.1.4, the STT had two purposes:

- The analysis of experimental group learners’ change (if any) in strategy knowledge before and after the research implementation by comparing their scores for three measurements (Monitoring, Questioning and Summarisation strategies) from the Exploratory Test (ET) with the scores for the same measurements in the STT.

- Comparing the STT measurements between the experimental and control groups to determine the extent of strategy knowledge transfer in the experimental group, and therefore, the overall effectiveness of the intervention.

As mentioned in 5.1, although the data for the Exploratory Test (ET) were gathered in Phase 1, they were gathered for the purpose of comparing ET measurements with
similar measurements from the STT. Therefore, in order to properly contrast the experimental group learners’ scores from the ET and STT data, the ET data will be analysed first below.

5.2.1 Analysis of Exploratory Test data

The function of the Exploratory Test (see 4.5.1.3) was to enable the comparison of measurements for learners from the Experimental group before and after the research intervention. The Exploratory Test was not a formal pretest; it was deemed to be ‘exploratory’ because it was administered to the experimental group before the research intervention, which meant learners were asked to use strategies about which they had little or no knowledge. Since I had also to take into account that the teachers participating in the research intervention would in all probability react differently to the intervention in terms of the quality and quantity of their participation, it was not possible to accurately predict which strategies would be trained sufficiently (if at all) during the intervention. It was, therefore, only possible to determine which ET measurements would be useful for comparison with similar measurements from the STT data after the intervention.

However, upon completion of the intervention it was possible to use three measurements from the ET for comparison with the same measurements from the STT for the experimental group (Grade 5E). The three measurements were Questioning (Q), Summarisation (S) and Monitoring (M). In total 30 learners were measured for the ET and 33 for the STT (the difference between the totals is due to learner absence on the day of the ET).

A One-way ANOVA was used to compare the Experimental group’s ET scores for the three measurements before the intervention with their STT scores for the same measurements after completion of the intervention. Results returned a p-value of less than the significance level (p<0.01) for all three measurements (S- Summarisation, M-Monitoring and Q-Questioning), indicating that the intervention had a significant effect on learners’ knowledge of these measurements.

An effect-size analysis (see 4.6.1) with the use of Cohen’s $d$ was also performed on the ET and STT measurements to measure the effect (if any) of the research intervention on learners’ scores before and after the research intervention. Cohen’s $d$ measures how meaningful an intervention is (Olejnik & Algina, 2000:241) and reports
its results as the size of the effect of an intervention, as well as the percentage of change (increase or decrease) recorded from the comparison measurement to the treatment measurement. The results of the Cohen’s $d$ analysis of the ET and STT measurements are shown in Table 10 (for effect size scales, see 4.6.1).

<table>
<thead>
<tr>
<th>Measurement</th>
<th>ET mean ($n=30$)</th>
<th>ET std deviation</th>
<th>STT mean ($n=33$)</th>
<th>STT std deviation</th>
<th>Cohen’s $d$ effect size</th>
<th>Percent change</th>
<th>$F$ test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questioning</td>
<td>2.3</td>
<td>1.02</td>
<td>2.9</td>
<td>0.72</td>
<td>Medium</td>
<td>26%</td>
<td>$F(1,29)=19.589$ $p=.00012$</td>
</tr>
<tr>
<td>Summarisation</td>
<td>2.4</td>
<td>0.96</td>
<td>3.3</td>
<td>0.99</td>
<td>Large</td>
<td>38%</td>
<td>$F(1,29)=28.325$ $p=.00001$</td>
</tr>
<tr>
<td>Monitoring</td>
<td>1.4</td>
<td>0.68</td>
<td>2.3</td>
<td>0.73</td>
<td>Very large</td>
<td>64%</td>
<td>$F(1,29)=36.282$ $p=.00000$</td>
</tr>
</tbody>
</table>

Table 10: Effect size analysis of Exploratory Test measurements
(Refer to 4.6.1 for effect size scale)

The results in Table 10 indicate that the intervention had a ‘medium’ to ‘very large’ effect on learners’ knowledge of the three measurements taken between the ET (comparison measurement) and the STT (treatment measurement), with the largest effect being on the Monitoring measurement.

Overall learners’ Monitoring and Summarisation skills showed the greatest improvement (see Addendum O for comparison of scores of STT vs. ET). The increase in Summarisation skills can, however, be considered more representative of learners’ actual increase in both knowledge and application of the Summarisation strategy than the Monitoring strategy. The reason for this is that the scores of the Summarisation measurement were calculated by judging learners’ summaries of a paragraph; in other words, learners were able to present ‘hard evidence’ of their application of the strategy. Monitoring, however, implies that learners are aware of whether they understand what they are reading, and if they do not understand, that they realise this and apply the appropriate strategy. Monitoring, therefore, is more difficult to measure in a written test – in the STT learners were required to answer the question “What must I ask myself while reading?” (Answer = “Whether I understand what I am reading” or anything related to checking understanding). In other words, although most learners scored well in this measurement, the score merely indicates that they were aware that they needed to check their understanding; it does not mean that they were, in fact, checking their understanding while reading.
In terms of the Questioning measurement there was also an increase in scores between the ET and STT – however, the increase was mostly an increase in scores at a text-based level (from 1 to 3 or 2 to 3), rather than an increase in scores from a text-based to knowledge-based level (3 to 4 or 5). On average learners with a negative-value RAD showed a smaller/no increase in Questioning than learners with a positive-value RAD.

5.2.2 Analysis of Strategy Transfer Test data

As described in 4.3.2 and 4.3.3 a second grade 5 class was used as a control group in this study in order to determine the effect (if any) of the intervention on learners who received the research intervention (the experimental group, Grade 5E) and learners in the same grade who did not receive the intervention (the control group, Grade 5C). The experimental group received instruction over a period of two school terms (except during formal examination weeks at the end of the term), whereas the control group received no instruction at all.

A One-way ANOVA was performed on the STT data to determine the differences, if any, between the STT scores for the Experimental and Control groups. The results returned a p-value of less than the significance level (p<0.01) for the S (Summarisation), M (Monitoring) and T (Title) measurements, thereby indicating that the intervention had a significant positive effect on the Experimental group’s knowledge of the measurements in comparison to their Control group counterparts. A trend (significant at 5% level, p=0.02) was visible for the Q (Questioning) measurement, indicating that the intervention had some effect on the Experimental group’s knowledge of this strategy. The TT (Text Type) measurement showed little to no effect (p=0.38) on the Experimental group’s knowledge in comparison to the Control group.

An effect-size analysis (see 4.6.1) with the use of Cohen’s $d$ was further performed to measure the size of the effect of the intervention on the group scores for each measurement.
<table>
<thead>
<tr>
<th>Measurement</th>
<th>Group 5E (n=33)</th>
<th>Group 5C (control) (n=33)</th>
<th>Cohen’s d</th>
<th>Effect size</th>
<th>Percent change</th>
<th>F test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questioning</td>
<td>2.90 0.72</td>
<td>2.42 0.90</td>
<td>Medium</td>
<td>20%</td>
<td>F(1,64)=5.8017 p=0.02</td>
<td></td>
</tr>
<tr>
<td>Summarisation</td>
<td>3.39 0.99</td>
<td>2.42 0.96</td>
<td>Large</td>
<td>40%</td>
<td>F(1,64)=16.031 p=&lt;0.01</td>
<td></td>
</tr>
<tr>
<td>Monitoring</td>
<td>2.33 0.73</td>
<td>1.54 0.61</td>
<td>Very large</td>
<td>51%</td>
<td>F(1,64)=22.209 p=&lt;0.01</td>
<td></td>
</tr>
<tr>
<td>Text Type</td>
<td>2.63 0.60</td>
<td>2.51 0.50</td>
<td>Small</td>
<td>5%</td>
<td>F(1,64)=7.8049 p=0.38</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>2.54 0.50</td>
<td>2.03 0.72</td>
<td>Large</td>
<td>25%</td>
<td>F(1,64)=11.142 p=&lt;0.01</td>
<td></td>
</tr>
</tbody>
</table>

Table 11: Effect size analysis of Strategy Transfer Test measurements (Refer to 4.6.1 for effect size scale)

As is evident from Table 11, the effect of the intervention on the Experimental Group’s strategy knowledge seems considerable, with an effect size of 51% for Monitoring, 40% for Summarisation and 25% for providing a title (also a form of summarisation). The results of both the ANOVA and Cohen’s d seem to be consistent with the positive changes that Teacher 5 (the Experimental Group’s teacher) showed during the intervention – changes that can be ascribed largely to her acceptance of support and regular instruction of the intervention strategies (see 3.7.4.2 and 4.4); in other words, she provided her learners with sufficient repetition and practice of strategy-instruction concepts (see Chapter 6).

5.2.3 Comment on Strategy Transfer Test measurements

Although the results as described in 5.3.2 seem to show that the intervention had a positive effect on the strategy knowledge of learners in the experimental group, the data do not necessarily tell the whole story, and I would like to posit that the positive effect of the intervention on the experimental group could have been even greater. Although such a discussion touches on issues that are more qualitative than quantitative in a section dedicated to the discussion of quantitative data, I feel it should be discussed as part of the Strategy Transfer Test data because these data were gathered after completion of the intervention, and because the control group, by not receiving the intervention, were largely excluded from the discussion of qualitative data in 5.1.

In terms of striking a balance in allocating scores for the STT, it did not seem fair to penalise learners from the control group unnecessarily because they had not been exposed to the intervention. During the scoring of responses control group learners...
were, therefore, given the benefit of the doubt when the ‘weakness’ in their answers was due to lack of exposure to the intervention. Final scores were based on my own scoring and that of two additional raters (one of which was a Grade 5 teacher from another school) who performed a separate, independent scoring of the STT responses based on the STT scoring rubric (see 4.5.1.4 for interrater reliability results).

To level the playing field between the learners in the control group and experimental group, question marks were disregarded. However, where control group answers clearly showed that learners did not know the answer, such answers were scored as incorrect. An example of this was the response to the question “Is this text fiction or non-fiction?”; many learners from the control group answered “text fiction” instead of merely “fiction” because they were (1) not used to referring to the “story” as a “text”, and (2) clearly not familiar with identifying the text type. Therefore they interpreted the question as having to distinguish “text fiction” from “non-fiction” instead of “fiction” from “non-fiction”. Not a single learner from the experimental group made this mistake because they had become accustomed to identifying the text type before reading the text, and were used to referring to any piece of writing as a text.

Another example includes the scoring of the Questioning strategy (Q measurement). A question, however poorly phrased, was accepted and scored as a question. This means that learners in the control group who had not received instruction in questioning techniques but were able to provide a question (albeit poorly phrased) sometimes scored virtually the same as learners in the experimental group who provided a well-phrased text-based question. An example of this is found in the responses of a learner from the control group (5C) and experimental group (5E) respectively:

5C L86 – How was the story for you [?]
5E L76 – Why didn’t Luther miss playing basketball?

In terms of the STT rubric (see Table 4), the question from L86 cannot be rejected as “Not completely relevant to the text” because the control group learners had not been taught to ask specific questions, nor can it altogether be scored as “Question relevant and text-based only” because it is too non-specific and not a text-based question (as taught during the intervention) since it does not refer to anything contained in the text. Refining the rubric’s scores even further to accommodate the control group learners was not an option because the focus of the scoring was
specific, namely knowledge of specific strategies as taught during the intervention. The Questioning strategy, for example, focused more on teaching learners how to ask questions about the text for improving comprehension, than teaching them how to phrase questions properly (which, ideally, would have to be included in Questioning strategy instruction in the long run).

In addition to similar scores for questions of differing quality, the control group learners’ general knowledge of terminology used during the intervention was different from the experimental group’s learners. It was clear that through lack of exposure to the intervention, they had not gained the strategy instruction discourse that the experimental group learners had. For example, the control group learners generally did not know what the terms “text type” or “summarise” meant; as learners encountered these terms during the administration of the STT, they started asking me to explain the term. I explained the terms to a few learners before realising that their lack of knowledge of these terms was the result of not being exposed to the intervention and that their scores needed to reflect this.

Overall the results of the analysis of the STT (and for that matter, the ET) indicate that the research intervention seemed to have a positive effect on the experimental group learners’ knowledge of the measured strategies. While normally it would not be logical to state that a control group did worse in a test because they were not taught the specifics of what was being tested, it is possible to allege that the intervention did make a difference, since the comparison of ET and STT results for the experimental group shows that the learners improved relative to themselves.

The STT results further provide evidence of measurable strategy knowledge transfer during the intervention, as per research question 3 (see 4.1.3). It should be reiterated that the purpose of the measurements was in the first instance to provide measurable and tangible evidence of the effect of the intervention in order to encourage its continued use by teachers and strengthen any recommendation regarding a framework for strategy instruction that may result from this research. Even though the results seem positive, they are intended to provide evidence of learners’ strategy knowledge after the intervention as opposed to an increase in learners’ reading comprehension. An increase in reading comprehension would, however, be the ultimate goal of the continued use of strategy instruction and its continued measurement.
This concludes the discussion and analysis of the quantitative data gathered for this study. The following chapter will deal with the discussion and analysis of the qualitative data; these data formed the main focus of this study and are accordingly analysed in more detail than the quantitative data.
Chapter 6

Research Results: Qualitative Data

This chapter will detail the results of the analysis and interpretation of qualitative data gathered during the research intervention. The interpretation and analysis of qualitative data gathered in Phase 2 will, in accordance with the research questions, be divided into categories of factors which were deemed to have influenced strategy instruction. The categories contribute to laying a foundation for the main aim of this study: recommending a framework for reading strategy instruction in Grades 4 to 6.

This study uses the mixed method research methodology (see 4.2), which means both quantitative and qualitative data were gathered and analysed. As described in Chapter 5, quantitative data were gathered twice in this study: during the first phase before anything else was done (i.e. before the start of the intervention) and during the third and final phase of the study to measure the effectiveness of the intervention. It is important to re-emphasise that the quantitative data play a supportive and supplementary role in this study - even the quantitative data that address research question 3 serve to provide evidence of the value and effect of reading strategy instruction and encourage its continued application.

The qualitative data were gathered in between the two quantitative data-gathering phases. Data gathering in Phase 2 was done through classroom observations during the intervention, which formed the bulk of the qualitative data, repeated unstructured interviews and discussions with teachers (both before and during the intervention) and taking samples of learners’ work. As explained in 4.5.2.1, most of my observations were done in Grade 5E (experimental group) and a smaller number were done in Grade 4 and Grade 6. Reference will be made to all three grades in the interpretation of the data.

The process of analysing qualitative data requires a researcher to take a holistic view of all gathered data before segmenting and reassembling them into categories which should be “so explicit that another researcher could use them to examine the same material and ... find the same frequencies in each category” (Fraenkel & Wallen, 2008:476). Various approaches for ‘segmenting and reassembling’ qualitative data have been developed over time; Miles & Huberman (1984) suggest a three-tiered
approach of analytic progression that reduces a complete data set into broad categories which are further analysed into themes and finally clusters within the themes. Tesch (1990:95-96) describes qualitative data analysis as segmenting the whole data set into “relevant and meaningful units” while retaining a connection to the whole. The data segments are then categorised into an organising system that is largely derived from the data themselves. A more recent source, Boeije (2010:78), describes the process of analysing qualitative data as data segmentation during which “fragments” that relate to the same theme are identified, after which distinctions are made between relevant fragments and sorted into groups or categories. A step mentioned in all three the aforementioned references about qualitative data analysis is that of ‘coding’ or ‘labelling’ – in other words, providing each category/theme/unit with a name/title. While Tesch (1990:96) admits that some topical categories may exist before the analysis begins (for example, categories related to the conceptual framework or particular research questions) Boeije (2010:88) cautions that a code/label should not be “just a name for a category” but must lead to a meaningful interpretation of the data. He contends that naming categories accurately requires insight into, inter alia, the research area and current research issues and that applying said insight leads to what he terms “theoretical sensitivity”, i.e. viewing data through a certain theoretical lens.

What became immediately clear during the collection of the two types of data was that whereas quantitative data collection had a fixed start and end point, qualitative data gathering and subsequent analysis seemed less absolute. It is almost as if the collection and analysis of qualitative data is, to an extent, a simultaneous process. Patton (2002:436) acknowledges that such a ‘simultaneous’ process of collecting and analysing data can occur by saying that during data gathering “… ideas about directions of analysis will occur. Patterns will take shape. Possible themes [will] spring to mind.” Patton (2002:432) goes on to state that no set formula, recipe or absolute rule exists for transforming data into findings. At most, researchers can be guided by existing examples of qualitative research. Similarly, I cannot claim that the final analysis of the data for this study was done according to any single existing method of analysis, but rather that it was guided by principles from existing research, and more specifically principles of qualitative data analysis espoused by Miles & Huberman (1984), Tesch (1990) and Boeije (2010), all of whom propose what is effectively a three-step process in analysing data, albeit that they use different naming conventions for the outcomes of the steps.
According to Patton (2002:437) the researcher has two primary sources to draw from in organising the analysis once data collection has ended: (1) the questions generated during the conceptual and design phase of the study (research questions) and (2) analytic insights and interpretations that emerged during data collection. My observations and initial analysis of the qualitative data gathered for this study were indeed directed by the study’s conceptual framework (see Figure 1) and two of the main research questions (see 4.1.3), namely: what influenced teachers’ and learners’ take on of strategy instruction, and how did teachers and learners take on strategy instruction. During the initial data gathering, and in fact, throughout most of the data-gathering process, I could not help but notice the link between gathered data and the research questions. It is, therefore, fair to say that, at times, I formed ‘ideas about directions of the analysis’ before the final analysis and interpretation of the data. However, because of the collaborative nature of the intervention and in view of the fact that few, if any, guidelines exist for teaching strategy instruction, it soon became clear that my ‘pre-formed ideas’ about directions would be tested and have to be questioned by means of a thorough analysis.

Therefore, to ensure that the final interpretation of the gathered data was as thorough as possible, I started the analysis of qualitative data by identifying topics that “occur and reoccur” throughout the data (Tesch, 1990:90), or what Miles & Huberman (1984) call identifying ‘categories’. In doing this, I identified a range of topics, which at that point were not listed in any particular order or divided into any particular theme or group. Upon looking at the range of topics in more detail and attempting to sort them into matching groups, it seemed that all topics fell into one of two overarching categories which I elected to call the What category and the How category. In other words, each of the topics seemed linked either to data related to What influenced the take on of strategy instruction (I chose to call these data factors), or How strategy instruction was taken on by teachers and learners (these data were categorised in terms of phases).

It should be emphasised that the factors and phases represent change/development in time as observed in teachers’ and learners’ behaviour. In other words, instead of representing a fragmented view of micro-thematic occurrences in the data, the factors and phases instead represent a holistic and developmental view of change (or lack of it) over the entire research period. Although micro-themes occur naturally within this holistic view they are not considered the driving force for categorisation.
In order to provide context for the discussion to follow, the What and How factors and phases are illustrated graphically in Figure 7 below.

![What affected reading strategy instruction](image)

**What affected reading strategy instruction**

As can be seen in Figure 7, the *What* factors (see 6.1 and subsections) comprise the influences on teachers which existed at the research school before the intervention commenced and which to a greater or lesser extent affected *How* RSI was taken on. The *What* factors overlap/intrude into the *How* phases, indicating that these pre-existing factors at the research school, although affecting how RSI was taken up by teachers, were themselves susceptible to change – the more teachers accepted change in the form of taking on reading strategy instruction, the clearer the positive retrogressive effect seemed to be on the pre-existing *What* factors.

The *What* factors in most cases represent external issues which could be deemed as beyond schools’ and teachers’ *direct* influence and control (such as class size, school attendance, multilingual classes). However, some of the factors could arguably
represent factors over which schools and teachers *may or may not* have direct influence depending on teachers’ (and schools’) reaction to changes required by research interventions. For example, teachers have the ability to change their expectations of learners but do not necessarily have the same amount of direct control over their training (knowledge). Figure 7 helps to illustrate that so-called teacher and learner engagement or disengagement with strategy instruction can (should) be placed in context of the pre-existing *What* factors, rather than be seen purely as criticism about *How* strategy instruction is taken on/not taken on. Figure 7 further serves to highlight both the outcomes of the intervention (teacher phases), and the factors that must be taken into account for enabling effective reading strategy instruction.

The *How* section consists of four phases (Expectation, Implementation, Experimentation and Independence) which represent teachers’ change and development (see 6.2 and subsections) during the intervention. Although this study found that learners also moved through phases (see 6.3), this is not represented in Figure 7 since learners’ change and development depended almost entirely on how their teacher/s took on reading strategy instruction.

The *What* and *How* categories formed a good match with the research questions (see 4.3.1) and I found the representation of the analysed data satisfactorily representative of the research project in the sense that all data had been segmented and represented, and yet maintained a “connection to the whole” (Tesch, 1990:95).

In the discussion that follows, and in keeping with the sequence of the research questions, the *What* factors in Figure 7 will be discussed first. After discussing *what* influenced teachers’ (and learners’) strategy instruction in 6.1.1 to 6.1.9, the discussion will turn to the *How* phases: *how* strategy instruction took place in the context of the pre-existing *What* factors. In discussing how teachers and learners took on reading strategy instruction, it should be possible to illustrate where Known Theory (research) informed the results, and/or where the results in turn could inform research in terms of solutions specific to strategy instruction in South Africa. The discussion of the factors and phases should, therefore, go some way towards laying the groundwork for the final chapter of this study: proposing a framework for the successful implementation of reading strategy instruction in Grades 4 to 6.
6.1 What influenced strategy instruction: the effect of pre-existing factors

The What factors represent issues that existed at the research school before the start of the intervention, and which could in most cases be ascribed circumstances at the majority of schools in the South African education system. During the analysis of the qualitative data gathered for the intervention, I identified the following as recurring, pre-existing What factors that seemed to impact not only how teachers approached their teaching before the intervention, but also on how teachers and learners took on strategy instruction: the multilingual nature of classes, language of learning and teaching (LoLT), learner literacy levels, administrative burden, class size, school attendance, teaching resources and support, teacher attitudes and expectations and teacher knowledge.

It is important to acknowledge the What factors in this study for three reasons: (1) it acknowledges the presence of pre-existing factors that can support or hinder teachers from making the change/s required by innovations, and have the ability to dilute the actual impact of teacher change and take-up of innovations (Smith & Gillespie, 2007; Clair & Adger, 1999), (2) it could be argued that addressing the pre-existing factors could lead to improved strategy instruction implementation in general, and (3) to show that the proposed strategy instruction framework in Chapter 7 has taken cognisance of all factors that could possibly impact on strategy instruction.

In light of the three reasons listed above, it should be pointed out that although the reporting of the factors in this section may appear rather structured, the process of arriving at these headings was not nearly so clear cut or linear. The factors pertaining to teachers’ instruction as described in this section, be they generic or specific, recurred throughout the data, and tended to merge into each other to the extent that they could be placed in more than one category; in fact, in the discussion of the How phases (see 6.2), reference will be made to factors discussed in this What section. In the same way, during the discussion of the What factors below, reference will be made to instances during the intervention since such references serve to confirm the presence and influence of the identified What factors.

The sequence of the factors in the discussion below is driven by the degree of influence they were observed to have on how teachers took on reading strategy instruction, bearing in mind that the sequence will seem more linear and absolute in
writing than it would have been in reality. *To juxtapose the influence of the What factors against the influence of teachers’ change on these factors as they took on RSI, also see Figure 8 in 6.2.5.*

For ease of reference the three teachers who took part in the research intervention will be referred to as Teacher 4 (Grade 4), Teacher 5 (Grade 5 Experimental Group) and Teacher 6 (Grade 6). All teacher observations/utterances will be quoted in English; where teachers spoke Afrikaans their comments were translated\(^{14}\) into English during the preparation of data. Language errors, where they occur, have been quoted verbatim.

### 6.1.1 School attendance

School attendance is the factor that most visibly affects teaching: if learners do not attend class they cannot be taught. Poor attendance at the research school is driven mainly by factors in the community. As mentioned in 4.3.1 the research school is situated in a low SES community with high levels of unemployment, crime and poverty. The principal and teachers often referred to poor parental involvement and low levels of literacy amongst parents. Teacher 4, when asked her opinion of the main reasons for learners’ poor performance, included the following amongst her reasons: ‘Semi-schooled’ parents; learners receiving little or no help at home, difficult socio-economic circumstances at home, lack of encouragement from parent/s to engage in school work, and learners’ reluctance to remain after school for extra lessons.

At the research school the absence of parental involvement seems to manifest itself in a lack of parental insistence or pressure on learners to attend school. This is particularly noticeable at the end of the term when the majority of learners stop attending school completely once examinations have been completed. Non-attendance occurs irrespective of the number of school days or weeks that remain before the start of official school holidays. This trend was especially evident at the end of the 2009 school year when examinations were completed approximately three weeks before the official school holidays (according to the teachers I asked, the early examination date was to ensure that final results reached the Department of

---

\(^{14}\) Translations were done by the researcher and checked by a translator. The original Afrikaans utterances are provided in the text in square brackets; utterances that were deemed too long to include in the text have been provided in Addendum P.
Education timeously for progression and promotion purposes). This means that learners effectively lost nearly three weeks of schooling in one school term alone. The lack of resources (see 6.1.8) and the involvement of (educated) parents to perform activities with learners in order to keep them occupied while teachers attend to submitting their exam results also does not make it attractive for learners to come to school, since they know that they will spend the day unoccupied while teachers attend to administrative duties. Although a small portion of parents (for example, approximately 12 out of 33 learners in Grade 5E observed at the end of 2009) do seem to insist on their children attending school until the end of the school term, it is not always possible to tell whether this is done to ensure the child’s safety by keeping them off the streets, or in the hope that the child receives instruction till the official end of the term/year. Generally teachers at the research school seemed to accept poor attendance at the end of a school term as a foregone conclusion. I did not observe any teacher attempt to engage learners who did attend school during the three weeks in question in teaching or educational activities. Teachers continued to use the time to finalise their outstanding work, and used learners to run errands or perform tasks such as cleaning and tidying cupboards.

6.1.2 Language of Learning and Teaching (LoLT)

The language of instruction in the research classes was English, although the school itself is predominantly Afrikaans and situated in a predominantly Afrikaans-speaking community. It was not always clear whether the learners in the English Home Language (EHL) classes did indeed speak English as a home language: when I asked EHL learners what they spoke at home, they answered “English”. When I asked the EHL teachers what language their learners spoke at home, they answered “Afrikaans”. On the occasions that I overheard a parent of a learner in an EHL class speak to the EHL teacher, they invariably spoke Afrikaans, indicating that Afrikaans seemed to be their home language. The EHL learners, despite insisting that they were EHL speakers, are perhaps better described as bilingual (Afrikaans and English) than English. During an observation of a Grade 6 class when the teacher was discussing ways to address conflict and asked his learners how they go about handling conflict. A learner’s spontaneous response of “Kry jou na skool”, that’s how we do it, sir! 15 indicated just how easily learners switched between Afrikaans and English. The fluency of their bilingualism, however, seemed to be restricted to social learner-to-learner interactions: in non-emotive social situations (in passages, during break

15 “Kry jou na skool” is the Afrikaans equivalent of “We’ll sort this/you out after school”.
times) I observed EHL learners speaking English to their Afrikaans counterparts, but amongst themselves in class EHL learners often spoke Afrikaans. However, in emotive social situations the EHL learners invariably resorted to Afrikaans, whether in their EHL class or outside on the playground.

However, in terms of using language for learning, EHL learners’ bilingualism seemed to be ‘intentionally restricted’ and they displayed a distinct lack of interest in Afrikaans or learning in Afrikaans. Teacher 5 described her learners’ Afrikaans as "very poor", that they were "reluctant to use it", displayed little motivation for learning Afrikaans and that she struggled to maintain their attention during Afrikaans lessons. From observing an Afrikaans lesson in her class this indeed seemed true; learners were less enthusiastic in general and needed considerably more prompting than in other subjects. I also observed a Mathematics lesson in Grade 5 on a day when learners from an Afrikaans-medium class whose teacher was absent were also present in the EHL class. The EHL teacher was subsequently forced to teach a lesson about fractions in both languages. The EHL learners displayed a strong “affective intensity” (Gee, 2005) in their reaction to their (EHL) teacher’s use of Afrikaans names for fractions and were very exaggerated in their refusal to even attempt an answer in Afrikaans. This seemed indicative of the learners’ awareness of language-driven social class issues in the community served by the research school. Although the community is predominantly Afrikaans speaking, Afrikaans is seen by many as a ‘low status’ language, a view of Afrikaans that originated as a form of revolt against the predominantly Afrikaans Apartheid government. McCormick (2002:3), in a study of a community similar to the one in which the research school is situated, explains that Afrikaans-speaking community members experienced “ambivalence” towards Afrikaans under Apartheid rule and instead perceived English as the ”language of upward social mobility”, an image it still retains. The EHL learners seemed to be aware of the higher status afforded to English in their community, and while they were willing to use Afrikaans in social interactions (and, indeed, seemed to do this automatically), they seemed to want to distinguish themselves as English speakers in the more ‘formal’ classroom situation.

Generally all EHL learners observed for this research consistently used the Afrikaans auxiliary + verb construction (het ge- + verb) when using the past tense in English, so instead of saying He said/He gave they would say He did say/He did give. This past-tense verb construction occurred despite the fact that teachers did not use it (nor did they correct learners’ use of this construction). Other learner utterances such
as I know what's it gonna be (instead of I know what it is/it's going to be) indicated the influence of the Afrikaans verb position in a typical sentence. Teachers' English was also occasionally marked by the imperfect use of English, with statements such as the following: Why don’t the word ‘bark’ gets a "s"? or We going to talk about the positive things that is happening.

Based on results from the Department of Education’s Systemic Evaluations (Grades 3, 6 and 9) and annual standardised assessments, in general learners at the research school and in the research classes did not seem to have particularly high literacy levels, irrespective of the language of instruction. However, the annual standardised language assessment\(^{16}\) indicates that EHL learners (who, based on the discussion above could be argued to receive instruction in a language that is not always their home language) perform better than their Afrikaans counterparts who do receive instruction in their home language. Teachers (other than the research teachers) also described EHL learners as “more confident and motivated to learn” than their Afrikaans home-language speaking counterparts. The tendency towards low literacy levels amongst Afrikaans HL learners is confirmed by Heugh et al. (2007:71) who report “extremely unsatisfactory literacy-level achievement of speakers of Afrikaans” in their assessment of language and mathematics skills for Grade 8 learners in the Western Cape.

In summary: despite learners in EHL classes not always receiving instruction in their home language, and despite teachers at times using imperfect English and learners’ general low literacy levels, I did not observe an instance where these factors influenced their participation in reading strategy instruction negatively. The fact that EHL learners spoke what can be described as a variety of South African English (Cape Flats English) merely seemed to indicate that this is how learners (and perhaps the community in general) use English. However, it can be argued that a non-standard variety of the language of instruction and low literacy levels could, in the long term, affect strategy (comprehension) instruction if teachers’ textual and linguistic knowledge does not stretch far enough to promote higher-level text processing in learners.

Lastly, it must be pointed out that South African schools more often than not serve multilingual communities, and teachers do not always have a choice about the

\(^{16}\) This trend was confirmed by the results of the 2009 standardised assessment in the research school. Refer to Addendum E for a copy of the WCED results.
language of instruction. This is certainly true at the research school; while some teachers prefer to teach in English others prefer not to but are required to do so by the school because no other teachers are available. One teacher commented *They [the school] struggle to get people who want to teach English* [Hulle sukkel om mense te kry wat Engels wil gee]. If teachers are expected to teach in their second (or third) language the issue of teachers’ knowledge of language becomes an important issue – this is discussed in more detail in 6.1.9.

### 6.1.3 Multilingual classes

Multilingual classes are a reality in the majority of South African schools. The classes at the research school, while divided according to either Afrikaans or English Home Language instruction, include learners whose Home Language is neither Afrikaans nor English (also see 6.1.2). Two of the research teachers made the following statements to me on separate occasions: “[Learner’s name] doesn’t belong in this class” (in reference to the learner’s ability to use English) and “Learner X is fluent in Xhosa, she’s not so good in English. This is actually a very sad thing that she’s in the English class”. The latter comment was made by the teacher in question on more than one occasion and whilst standing next to the learner in question. Both comments were made about learners (Grade 4 and Grade 5) whose home language was neither English nor Afrikaans and who seemed to struggle with English as language of instruction. When asked why they thought the learners attended the research school instead of a school which taught in their home language and nearer to their homes, the teachers either answered “I don’t know” with some exasperation, or were of the opinion that the parents of the learners in question believed English to be ‘better’ (see 6.1.2), and therefore insisted on their children attending the research school.

The WCED’s Literacy and Numeracy Strategy 2006-2016 lists one of its aims as educating teachers more effectively for a multilingual and multicultural environment. It specifically states that “one of the key barriers that has been ignored relates to language” and that it intends to “assist teachers in the management of multilingual classrooms” (WCED-LNS:2006:16). The RNCS and its supporting documents, such as the *RNCS Teacher’s Guide for Development of Learning Programmes* and the RNCS for Languages, also clearly state the need for “making multilingualism happen” (RNCS, 2002:7), as has been discussed in detail in 3.5.1. The abovementioned teacher comments about learners who did not constitute a ‘linguistic fit’ in their classes seemed to indicate that although the research school accepts learners from
diverse backgrounds there seems to be little if any awareness of the concept of multilingualism and how it is intended by the RNCS and WCED to be woven into everyday teaching practices. Tatar & Horenczyk (2003:397) are of the opinion that although the "increase in classroom heterogeneity is accompanied by multicultural rhetorics, which are gradually and steadily permeating the educational discourse", teachers seem to continue to lack the "information, skills, and motivation to cope successfully with these challenges". Wedekind (2001:144) supports this view by stating that "many South African teachers do not have the knowledge, experience or in some cases the disposition to address matters of race and culture in their classrooms".

From my observations it seems that although 'multicultural rhetoric' abounds in educational policy documents, teachers and schools do not have sufficient information about or understanding of such 'rhetoric' to enable its effective implementation. Teachers seem to regard learners as either English or Afrikaans because the school provides instruction in these two languages. They seem to struggle to accept the presence of learners in their class who speak neither of these two languages well enough to participate effectively in learning activities. However, as also discussed in detail in section 3.5, guidance to teachers and schools about how to go about implementing multilingual teaching seems to be lacking in departmental policy documentation – which means that even if teachers were to consult the relevant policy documentation they would not necessarily find the guidance or information they require.

Although reading strategy instruction is aimed at improving comprehension and can, therefore, be applied to any language, the reality of multilingual classes in South African schools does highlight the problem of how strategy instruction will be affected if the LoLT differs from the language used in the text (i.e. available literature).

### 6.1.4 Administrative burden

From first contact with the school’s principal and teachers, even before the start of the intervention, it was evident that teachers felt burdened and overwhelmed by what they called 'admin'. This 'admin' mostly consists of paper work related to the Outcomes-based Education (OBE) curriculum requirements which includes preparing
extensive lesson plans and completing numerous assessments per learner\textsuperscript{17}. The admin burden dominated all discussions and was always a contributing factor when the research teachers did not have time to participate in the research intervention. As is discussed in 6.2.1, all Intermediate Phase teachers, irrespective of language of instruction, were invited to participate in the intervention, and most attended the information session. However, once it became clear during the information session that the intervention would not provide a ‘quick fix’ (i.e. additional work was required), the teachers who were not required to participate for the purposes of the research changed their minds about taking part – despite voicing their concerns about learners’ ‘reading problems’. In my opinion the administrative burden that teachers experienced was the main reason for their withdrawal.

An issue that compounded the problem surrounding the administrative burden was that pending visits by curriculum advisors from the Department of Education (to check on teachers’ paper work) seemed to take priority over everything else; even teaching was stopped in order to ensure that the administrative requirements were met when the curriculum advisor arrived. One teacher commented: \emph{She [curriculum adviser] is not concerned about my impact on the class; only that my files are in order} [Sy ‘worry’ nie oor my impak op die klas nie; net dat my lêers in orde is]. When I asked teachers why they adhered to unrealistic deadlines and requests at the cost of their teaching, they answered that they had considered refusing to adhere to deadlines, but that this was not recommended by school management because repeated negative reviews from curriculum advisers would reflect negatively on the individual teacher/s and ultimately on the school.

It seemed that school management (principal and department heads) did not take a stance with the Department to assist teachers in coping with administrative requirements. For example, at the end of the 2009 school year, teachers at the research school were informed a week beforehand that final examinations would be written in the second week of November (four weeks before the end of the school term). In addition to this, the curriculum adviser would visit the school during the examination week to check on teachers’ planning for 2010. Teachers felt extremely overburdened, and one of them commented to me as follows\textsuperscript{18}: \emph{We feel the curriculum adviser … she puts too much on … they [school management] allow her}

\textsuperscript{17} During 2010 the administrative burden on teachers was addressed when the Department of Education expressed its intention of removing the requirement of preparing portfolios and reducing the number of subjects for Intermediate Phase learners.

\textsuperscript{18} Refer Addendum P Text 1 for original Afrikaans
too much. They allow her too much. He [principal] should be saying to her ... I asked him personally and I said to him "Ask her if she can’t do the planning in that ... [week after progression and promotion]". We have a whole exam to contend with! What do we do for a whole week after progression and promotion? It’s more than a week ... that’s what that week is for ... for doing planning ...

While some form of administrative process is certainly necessary for effective teaching and record keeping, the current OBE administrative requirements seem to take up a disproportionate amount of teachers’ time and energy: time and energy that should be spent teaching instead. In the research school in particular, so much time seems to be spent completing assessment forms that one has to wonder where teachers find the time to teach that which must be assessed in the first place. In fact, at times it seems teachers are merely surviving the curriculum instead of teaching it.

6.1.5 Class size

The average number of learners in the four research classes was 41. Teachers at the research school often referred to working with classes of this size as “crowd control” rather than teaching or maintaining discipline. The large number of learners per class meant that teachers were often involved in a struggle to make themselves heard and were usually unable to provide individual attention to struggling learners (see 6.1.5). In order to achieve a ‘teachable’ level of silence teachers seemed to be forced into using controlling teaching styles (see 6.2.1), which enabled them to maintain a level of silence that allowed teaching (or at least make themselves heard) but at the same time also seemed to suppress spontaneous learner participation in situations which warranted spontaneity. Teachers seemed to be forced to choose between maintaining discipline and creating a participative learning environment, and more often than not chose the former.

Research on the effect of class size on learner achievement varies in opinion about the value of smaller classes. Krueger (2003:F59) states that generally literature on research about class size and achievements “exhibits systematic evidence of a relationship between class size and achievement”. Lazear (2001) provides a model which claims that learners in smaller classes learn more because they experience fewer learner disruptions during class time. From my observations during the research intervention it certainly proved to be true that smaller classes (e.g. Grade 5E with 33 learners) displayed fewer interruptions than larger classes (Grade 4 with
49 learners), although the number of disruptions depended to a considerable extent on the teacher’s ability to maintain discipline. Lazear (2001) goes on to state that disruptions result in teachers suspending their teaching which ultimately reduces the amount of learning for everyone in the class. Krueger (2003:F53) deduces from Lazear’s model that smaller classes reduce a learner’s “propensity to disrupt subsequent classes because the [learner] learns to behave better with closer supervision or enables teachers to better tailor instruction to individual [learners]”.

Hanushek (1999) is an example of a researcher who has misgivings about the value of smaller class sizes. One of the reasons he provides is the fact that student populations have changed over the past years and have generally become less motivated (1999:137), i.e. unmotivated students’ performance is not necessarily improved by smaller classes. Hanushek’s (1999:145) strongest arguments are the influence of the “underlying relationships among families, school organization, class size and achievement”, with specific focus on family background. From observations at the research school Hanushek’s points about learners’ lack of motivation were clearly underscored by the general level of school attendance and lack of parental involvement (see 6.1.1).

In general my observations showed that the size of classes at the research school caused regular disruption of teaching, suppressed spontaneous involvement by learners and reinforced teachers’ need for control, which in turn strengthened their existing punitive teaching styles. In view of the nature of reading strategy instruction this sometimes caused a barrier to effective teaching of strategies (see 6.2.3).

6.1.6 Learner literacy levels

The general literacy levels of learners at the research school are reflected in the results of the Burt Word Reading Test and Cloze test performed before the start of the intervention (see 5.1.1 and 5.1.2). According to the results of these two tests, the learners who participated in this study were generally poor readers with a measured mean group reading age of up to two years lower than the groups’ mean real age, and individual learners scoring a reading age of up to 6.08 and 6.42 years lower than their real age. As discussed in 5.1.3, the low reading age levels also seemed to show a relationship with the learners’ low comprehension levels, although there were exceptions.
To compound the general low literacy levels, the three research classes all had learners who required specialised attention. Consider the following extract from the Cloze test (see Addendum D1) of a Grade 4 pupil (the learner’s written answers have been underlined): Many different people are mirokos car drivers. Some drivers umeth men, and some drivers neobe women. Some drivers are kiralce, and some are (answer left blank). When asked to interpret (translate) what he had written, the learner could not do so.

In the Grade 5E class, two learners had similar reading difficulties, albeit not as extreme as the aforementioned Grade 4 pupil. Generally these two Grade 5 pupils either did not complete a reading task, or had to be assisted by the teacher (when she had time) or fellow learners. In fact, when administering the Strategy Transfer Test (see 4.5.1.4), I read the text (and questions) to one of these two learners to assist him in answering the questions, while Teacher 5 did the same with the other struggling learner19. A learner with a similar lack of reading skills existed in Grade 6; Teacher 6 described the learner in question by saying: He has invented his own language.

Teachers in general are not equipped to deal with severe literacy problems of this kind. The research school which has no remedial teacher, and teachers’ struggle with learners whose literacy levels were lower than their peers was obvious. Combined with large classes (see 6.1.5) which made individual attention difficult, and a considerable administrative burden (see 6.1.4) it seemed teachers at the research school simply could not deal with these learners. Teacher 4 stated the following: “I try to help learners who lack literacy skills, but because of the overcrowded class, time is against me”.

Very little, if any, assistance (other than from fellow learners) is given to any of the learners in the abovementioned cases. The research school teachers seemed to do what they could to assist struggling learners - generally struggling learners were assisted by a fellow learner (invariably a good reader) who read the text out loud and posed the questions to the struggling learner/s. Once the struggling learner/s provided a verbal answer, this was written down (sometimes by the struggling learner, and sometimes by the fellow learner).

---

19 Although these learners’ results cannot be deemed representative of their reading comprehension ability for the purposes of this study, their answers were deemed representative of their comprehension of the text, albeit through listening.
When I asked the research teachers how they thought it was possible for the aforementioned learners to progress so far as Grade 4, 5 and 6 respectively, they invariably quoted the Department of Education’s guideline that no learner may be ‘held back’ more than once per school phase. It seems, therefore, that learners who should not be allowed to progress without proper remedial intervention are being allowed to progress to a next school phase ‘in accordance with the rules’ (and in the absence of the required remedial assistance in schools), where inevitably such learners’ literacy problems are compounded by increased requirements from the higher grade/s and a continued lack of remedial attention.

### 6.1.7 Teacher expectations

Clair & Adger (1999) list teachers’ own attitudes and beliefs as a factor that influences the success (or non-success) of innovations, or as described by Smith & Gillespie (2007:226), could dilute the “actual impact of teacher change and take-up of innovations”. The research teachers (in fact, all teachers that I spoke to in the research school) repeatedly made statements such as *Our children cannot read or They can read but they don’t know what they are reading*. Based on the results of systemic evaluations conducted by the Department of Education in 2006 and 2009 and on the results of the annual standardised test conducted by the WCED, overall literacy rates in the province and at the research school are indeed poor (see Addendum E).

However, in order to ensure that recommendations made from this study were based on more than merely the opinion of teachers or generalised provincial test results, an independent measurement of learners’ word reading and comprehension skills was taken before the research intervention in the form of a Burt Word Reading Test and Cloze test. The Burt Word Reading Test results showed that while on average there was a significant difference between learners’ real age and Burt age (see Table 7), the overall picture was not as hopeless as the teachers assumed it to be in all cases. Each research class had a group of exceptionally strong readers (although they were in the minority) as well as a group of extremely poor readers. Overall, however, most of learners in each class, although scoring a reading age lower than their real age, could be described as better readers than their teachers seemed to give them credit for. When I mentioned outcome of the tests to the teachers they seemed surprised and even sceptical, and none of them asked me for more detail about the scores. When I discussed the Burt and Cloze tests with the principal, he also seemed
surprised by the small number of truly poor readers and made the comment: “Perhaps we should challenge them [the learners] more” [Miskien moet ons hulle meer uitdaag].

In general teachers seemed to take a deficit view of their learners’ abilities and seemed to regard their learners’ poor reading (and learning) skills as a foregone conclusion and wholly attributable to learners’ socio-economical circumstances, home environment and school facilities (see 6.1.8). Teacher 4, when describing why she thought learners perform poorly, quoted learners’ lack of numeracy and literacy skills, reluctance to stay after school for extra lessons, poverty and violence at home, semi-literate parents and the resultant lack of help or encouragement with school work at home. She also mentioned that some learners seemed to ‘fear’ the teachers, but that this was, in her opinion, mostly ‘in their minds’. She further mentioned the overcrowded classes which meant that teachers did not have sufficient time to help individual learners, and that struggling learners became discouraged as they grew older in comparison to their fellow learners in a particular grade.

Teacher 4’s description of learners’ circumstances is indeed representative of the community in which the research school is situated: poverty, violence, semi-literate parents, lack of support at home. She does, however, allude to factors other than learners’ socio-economic and home environments (little individual help from teachers and possible fear of educators), but seems to ascribe insufficient individual help from teachers mostly to class size, and learners’ possible fear of educators to learners themselves as something that is in the learners’ minds. The teachers in general, although employed at the school, seemed to distance themselves from the learners and while aware of learners’ (mostly negative) home circumstances, seemed to prefer not to see themselves as part of the community in which the school was situated20. All teachers at the research school live in suburbs that are more affluent than the research school’s suburb, and they all send their children to schools in or near their own neighbourhoods.

Having done observations at the research school over a period of a few months, I was aware that teaching learners from a low-SES community in a poorly-resourced school with overcrowded classes and little to no support from parents could prove

20 It should be mentioned that security issues surrounding the school do not promote much involvement by teachers outside school hours (the school building and premises are locked at 15:15 and all teachers are required to leave at that time).
disheartening to even the most motivated teacher. As Villegas & Lucas (2002:24) state, teaching under difficult circumstances can increase teachers’ “awareness of the pervasiveness and longevity of the inequities in schools” and the fact that existing structures and practices (see 6.1.1 to 6.1.9) only seem to perpetuate them; however by choosing to continue to view their school (and learners) through a lens of inequality merely causes teachers to “unwittingly perpetuate inequities” (Villegas & Lucas, 2002:24).

According to Rubie-Davies, Hattie & Hamilton (2006), Rubie-Davies (2007), Jacobs & Harvey (2010) and De Boer, Bosker & Van der Werf (2010), there is a direct link between teachers’ expectations and learners’ academic achievement. Villegas & Lucas (2002:23) describe socio-culturally responsive teachers as teachers who view all learners, including those who are “poor, of color, and speakers of languages other than English” (see 6.1.3), as learners “who already know a great deal and who have experiences, concepts, and languages that can be built on and expanded to help them learn even more”. Rubie-Davies, Hattie & Hamilton (2006:430) comment on what is termed “sustaining expectation effects” (also called self-fulfilling prophecy effects) which occur when teachers expect students to “continue to act or perform according to previously established patterns” and sometimes even disregard evidence of change which contradicts their (low) expectations (such as the research teachers’ reaction to the news of the Cloze and Burt test results). Rubie-Davies (2007) in a study on primary school teachers and their expectations of learners, found that when teachers had high expectations of learners their approach changed to include providing more detailed feedback to learners, using higher-order questions and managing learners’ behaviour more positively.

For example, Teacher 6, while showing a clear interest in his learners and knowing a considerable amount of detail about learners’ private lives, stressed the learners’ poor home environment and circumstances in all discussions he had with me. His view of learners’ poor circumstances also seemed to influence his lessons. To illustrate, an excerpt from one of his lessons has been transcribed below. The lesson was a language lesson about a poem. The poem was well chosen, since the poet describes a community in difficult socio-economic circumstances, similar to the suburb in which the research school is situated. After the poem has been read by selected learners, there is some discussion about it (consisting mainly of teacher-led questions). The teacher, however, rather than attempting to find something positive in learners’ environments to link to the poem that is being discussed, instead
strengthens the negative stereotypes of the research school’s suburb and community. When discussing the type of community being described in the poem, the teacher is recorded as saying the following (my analysis in the right-hand margin):

T6: … because this poem is telling us about the community … but what, what is important is that you guys must be able to identify with this poem, and say ‘But this is happening in my street’, or ‘This is what I saw yesterday’, or ‘This is what happened over the weekend’.

T6: Here’s … [learner’s name] can tell us about this incident … You know, remember when I spoke about your experience as a child in [school suburb], it’s different to the child who’s growing up in [name of affluent suburb]. The child in [repeats name of affluent suburb] or the child in [name of another suburb] … there in [name of third affluent suburb]; he doesn’t see people beating up their wives. Why? Because [name of security company] is driving up and down. They don’t allow things like that. Right? So … our children that is growing up in [school suburb] is exposed to so much more, and you are taught … You have to be tough here. Isn’t that so?

Class (in chorus): Yes, sir!

Nothing the teacher says in this excerpt (and the remainder of the lesson) gives the learners an opportunity to find positive characteristics about the community they live in (the poem ends with a focus on positive characteristics). Instead of attempting to find positives and emphasising and discussing these positives, the teacher stresses the negative factors in the poem that coincide with those of the school’s community.

However, while most teachers seemed to take a deficit view of their learners, it did happen that teachers who participated in the research intervention were surprised and encouraged when their learners performed well or provided an unexpected response during a particular lesson related to the intervention. Such an occurrence was observed during a Grade 5 lesson by Teacher 5. The lesson dealt with Summarisation and the teacher was using a sample lesson (as provided during the Information Session) because the lesson was amongst the first few lessons she taught about the particular strategy and she did not yet feel confident enough to use
one of her own texts. However, her confidence in her learners’ ability seemed to have grown over the course of the preceding lessons about Summarisation, because although the sample lesson suggested that the teacher create a few titles and ask learners to select the most appropriate one, the teacher instead decided to ask learners to create their own title. When this proved successful (i.e. a learner provided a good title almost immediately), she was visibly pleased, laughed and turned to me saying: You see! It’s easy, I’m not going to give them a choice, it’s too easy! [Sien jy! Dis maklik, ek gaan nie vir hulle ‘n keuse gee nie, dis te maklik!] Some of the learners who had up to that point been slightly hesitant to risk an answer sensed her positive mood, resulting in an immediate increase of hands in the air and a quick succession of suggested titles. Apart from the fact that the learners’ responses confirmed her increased expectation of her learners, her decision to ask learners for titles instead of providing them indicates she knew when to scaffold instruction and when not to, and that she was becoming willing to take risks in her instruction – an indication of change in her expectations and instructional methods.

Instances such as the one described above may be small, but they are important; they indicate a teacher’s change in belief of what she and her learners are capable of and the positive effect on both teacher and learners when her belief is affirmed – confirming Rubie-Davies, Hattie & Hamilton (2006) views of the effect of teachers’ beliefs about learners on learners’ achievements. It also seems to confirm that using an intervention that shows measurable positive results serves to encourage and convince teachers with low expectations not only to implement reading strategy instruction, but to increase their expectations of learners as they continue to implement strategy instruction.

6.1.8 Reading resources, reading culture and teaching of reading

The research school suffers from a distinct lack of teaching resources, ranging from desks to stationery to sufficient reading books for all learners. For example, in the Grade 4 class I observed how learners shared reading books during a reading lesson because of a shortage of books, making individual reading all but impossible. Other teachers reported a complete lack of reading books and used articles from magazines instead or created their own reading books from different sources. The Curriculum Statement (RNCS-L:2002:33) acknowledges so-called “print poor environments” as a possible “barrier to teaching” and suggests a selection of alternatives to teachers for finding/creating texts in these environments. While it is not a negative thing for
teachers to create their own reading materials, it does imply that such teachers know which texts are appropriate for their learners. In the research school teachers often mentioned the absence of age-appropriate reading material and generally did not know whether a text was age appropriate for their particular grade or not and, in my opinion, tended to use texts that did not sufficiently challenge their learners. There were very few dictionaries available, and those that were available were usually bilingual (Afrikaans-English). The Grade 5E teacher complained that bilingual dictionaries compounded her learners’ struggle to learn new words, because although learners could find the English word they were looking for in the bilingual dictionary, the Afrikaans translation of the word did not provide an understandable definition of the English word. Furthermore, although the school has a library, it is small and poorly stocked and generally kept locked. When I asked teachers why learners are not given more opportunities to borrow books from the library, the answer was that children too often did not bring books back, which meant that the library lost large quantities of books.

To counter the lack of adequate reading material and age-appropriate texts for teaching purposes I provided the research teachers with a book of age-appropriate reading texts for Grades 4 to 6. The research school also agreed to purchase new reading books for each of the three grades that participated in the research intervention; these books consisted of a mixture of fiction and non-fiction stories suitable for the respective grades, and were handed to the teachers approximately two weeks after the start of the research intervention. However, I did not see the new books being read by learners during any of my observations; not only did it seem that encouraging learners to read during spare time was not regular practice, but teachers also seemed reluctant to let learners use the new books without supervision through fear that the books would be damaged. While it is understandable that teachers want to protect books in an already ‘print poor’ environment, their overprotectiveness of new books seemed only to strengthen the perception that reading is for ‘special occasions’ rather than something that should be done as often and as naturally as possible. I also did not observe any learner reading out of their own free will, or enquiring about reading in any way. It would seem, therefore, that reading for the sake of reading (as opposed to reading as part of instruction) is not encouraged by teachers or considered by learners. Gee (2004:13) states that “children who learn to read successfully do so because, for them, learning to read is a cultural and not primarily an instructed process”. Such a statement implies that reading must ideally be something that learners view as a
positive and accepted part of the culture they belong to. However, when learners, and especially learners from low socio-economic environments, come from homes (cultures) where their parents do not read, either because they are not able to, or do not regard reading as important or simply cannot afford to buy reading material, such learners tend not to view reading as part of their cultural process when they enter school. It follows, therefore, that schools who serve learners that do not come to school from a culture of reading, become obligated to create and immerse learners into such a culture.

The Department of Education’s National Reading Strategy (2008) goes some way towards attempting to create a culture of reading by recommending a daily “drop all and read” half an hour. The intention of this half an hour is that everyone in the school, from learners and teachers to administrative staff and the principal, engage in reading activities. However, what seemed to happen at the research school was that subjects that were receiving specific attention from the Department took priority over everything else at the school; in this way, for example, the daily half an hour “drop all and read” was often used for teaching extra mathematics lessons (a strong Departmental focus during 2009). Teacher 5, in reference to needing more time to participate in the research intervention, made the following comment about the NRS’s recommended reading period that was being lost to administrative work or other subjects: ...

... but I said to him [principal], I ... I mean ... it’s just ... it’s perhaps ... I just wish we ... us teachers, had more time to use that reading lesson like it should be used ... really. [... maar toe sê ek vir hom, ek ... ek meen ... dit is nou ... dis miskien ... ek wens net ons het ... ons onderwysers ... het meer tyd om daardie leesles te benut soos hy moet ... regtig waar ...]

Ultimately, creating a culture of reading does not only require dedication from educators, it also requires access to adequate literature – something which is unfortunately not a reality in many schools.

As far as the existing teaching of reading at the school went reading lessons seemed to consist of a three-step process: handing out the text, announcing the title and reading the text (out loud to/with the class) and answering preset questions (often in writing without oral discussion). There seemed to be a distinct ‘gap’ between what the Curriculum requires and what teachers were implementing in their classes. Once the intervention was implemented, it became clear that teachers were not aware of the details of the assessments standards for the Reading & Viewing Outcome for the
Intermediate Phase (which show links with the reading strategies used in the intervention, albeit vaguely and inconsistently – see 3.4), or if they were aware, they did not know how/have the knowledge to implement specific aspects. For example, the RNCS for Home Languages (2002:72) states the following in the assessment standards for Grades 4 to 6 in the Reading & Viewing outcome: read a variety of fiction and non-fiction texts for different purposes; select appropriate reading and comprehension strategies for the purpose; skim for general idea; scan for specific details; make inferences; make predictions. When I showed teachers a copy of the assessment standards for the Reading and Viewing outcome for their respective standards to help them make the link between the content of the intervention and their daily instruction, they indicated they had not seen that information before. In other words, reading instruction at the research school did not seem to incorporate the curriculum’s requirements for Reading and Viewing. As far as the requirement for ‘a variety of fiction and non-fiction texts’ is concerned, the lack of resources limit the availability of a ‘variety’ of texts, and teachers generally seemed to regard reading and the availability of books to fictional texts. Once the intervention started, my observations showed that reading instruction seemed to be limited to fictional texts (specifically stories and poems) – probably because these types of texts are easiest to come by and the easiest to teach because they have a set structure (beginning, middle and end).

Having said this, it must be reiterated that the Curriculum is vague at best in terms of the guidelines and assistance it offers teachers for implementing its content. This lack of specific guidance about how to implement the details of the curriculum remains problematic if teachers do not have sufficient knowledge about the concepts required for such instruction – an issue that will be addressed in more detail in 6.1.9.

6.1.9 Teacher knowledge

Christie, Butler & Potterton (2007:39) in their Ministerial Committee report to the South African Minister of Education list five factors which, if improved on by schools, “might optimise learning and could improve school results”. The five factors include much of which has been discussed in 6.1 so far, such as the language of teaching and learning, time management, curriculum leadership and teaching of reading. The fifth factor is listed as “teacher knowledge” and suggests that “teachers need stronger content knowledge, and also knowledge of how to teach particular subjects”. The necessity for teacher knowledge is supported by Taylor (2006) in a study performed...
on South African schools, where he states that “pedagogical content knowledge” seems to be most lacking in teachers.

With specific reference to reading strategy instruction, Block & Duffy (2008:28) and Pressley & Beard Eli-Dinary (1997), warn that teaching teachers to teach reading comprehension is “much more difficult than anticipated” and must be “gradual and sensitive to the changing contextual conditions in classrooms” (see 3.7.3). In fact, this study highlights the fact that interventions that aim to teach teachers to teach reading comprehension should not only be sensitive to changing contextual conditions in classrooms, but also sensitive to teachers’ existing knowledge and skills. Not only did my observations show that teaching strategy instruction was indeed difficult and time consuming, but it seemed that assuming a specific level of linguistic or textual knowledge, even from teachers with a tertiary qualification and long years of experience, was unrealistic.

In 6.1.8 the discussion identified how research teachers’ existing reading instruction pointed to the possibility that they were (1) not always aware of specific curriculum requirements and/or (2) did not have sufficient knowledge to implement specific requirements. It was possible to deduce from pre-intervention discussions and teachers’ comments during the Information Session that they were not entirely confident of their knowledge of language and text (as required for the intervention). Joshi et al. (2009:606-607) state that “many studies have shown that teachers are not familiar with the required linguistic knowledge necessary to teach reading” and that when teachers were trained “in explicit instruction in the linguistic knowledge and applied such knowledge to their instructional practices, their students performed better on reading tasks”. McCutchen et al. (2002) found a correlation between teachers’ knowledge of basic linguistic skills and (1) classroom reading instruction as well as (2) their learners’ reading achievement, while Moats and Foorman (2003:23) found a “predictive relationship” between the same aspects.

In respect of the aforementioned studies it is important to point out two things: (1) the studies, while each focussing on slightly different aspects of knowledge about language all use the broad description ‘linguistic knowledge’, and (2) in these studies teachers’ content knowledge of language and reading instruction was tested; teachers’ knowledge about teaching comprehension does not seem to have been addressed, nor is specific mention made of text knowledge (which in the opinion of this study, is equally important for effective reading strategy instruction). This study,
therefore, while acknowledging that ‘linguistic knowledge’ encompasses a wide variety of concepts from phonological and morphological to syntactical and pragmatic, will utilise the term ‘linguistic knowledge’ to identify the knowledge deemed beneficial for the instruction of the reading strategies used in this study.

Based on observations during the intervention, it was possible to narrow down the linguistic knowledge that seemed underdeveloped in the research teachers and could be deemed beneficial for the take on and instruction of the strategies used in the intervention. This knowledge is listed below in Table 12, and is contrasted with the following in two additional columns: whether the identified knowledge is required/implied in the Curriculum, and whether evidence of the identified knowledge was observed before and/or during the initial stages of the intervention.

<table>
<thead>
<tr>
<th>Knowledge deemed beneficial to reading strategy instruction in this study</th>
<th>Required/implied in curriculum</th>
<th>Observed before/at start of intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text type (including genre)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Text structure (characters, setting, plot, problem, solution)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Identifying language &amp; grammar concepts</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Putting language and grammar concepts into context</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Word &amp; sentence-level processing</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Text-level processing (top down)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>• Literal &amp; figurative use of words (unlocking cultural, social &amp; personal associations/meanings)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>• Text analysis (exploring range of meanings, reasons for author’s choice of words, inferential &amp; critical skills)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 12: Linguistic knowledge for reading strategies used by intervention

The knowledge listed in the first column in Table 12 is deemed to be knowledge that would benefit how teachers take on strategy instruction, rather than knowledge that could prevent strategy instruction if it were not present. The second column intentionally includes the word implied because (as discussed in Chapter 3) although reference is made to reading strategies in the curriculum, it is not done in a cohesive manner or put clearly into the context of comprehension instruction; therefore, it could be argued that teachers would not necessarily recognise the links between what the curriculum requires and reading strategy instruction. The final column provides an indication of whether the identified knowledge was observed during the initial intervention lessons – essentially the discussion in 6.2 and its subsections provide evidence of where a “No” in the final column became a “Yes”, i.e. instances where the identified knowledge developed in teachers or not. As became apparent
during the intervention, it was easier to detect the underdeveloped knowledge in teachers than to develop this knowledge (see 6.2.3.1).

6.1.9.1 Text type and genre

On the whole the research teachers seemed unsure or simply did not seem to have knowledge about most of the concepts listed in Table 12, despite the fact that the assessment standards for the Reading & Viewing Outcome for Grades 4 to 6 require learners to apply these concepts. For example, as far as text type and genre are concerned, the RNCS for Language (2002:24) states: "All literature genres ... are relevant along with features such as character, plot, style, language, etc.", and "learners should also be knowledgeable about different genres of fiction and non-fiction" (RNCS-L, 2002:27). Examples of statements which indicated teachers’ uncertainty about these issues include the following:

\[T5: \text{Look at the topic} \ldots \text{the name of the} \ldots \text{of the [interrupts herself to address an unruly child]. Right. Look at the topic, the subject, the subject of the story. What can you tell me about that subject, the name of the story?}\]

This utterance indicates two things: (1) that the teacher is not sure about the difference between the topic (subject) and title (name) of a text, and while she realises that she must provide the learners with synonyms, she does not provide the right synonyms; and (2) the teacher and learners are not used to prior discussion of the text (activating prior knowledge) such as discussing their thoughts about a text title.

\[T4: \text{Now any piece of reading I give you is called a text, hey. And then you ask yourself is it a fiction story or is it a non-fiction story.}\]

\[T5: \text{What is the text type?}\]
\[T5: \text{Text type? Kelly?}\]
\[L: \text{A story}\]
\[T5: \text{It’s a story. Nice. It’s a story.}\]

In both extracts above the teachers equate ‘fiction’ to a story, which is a type of fiction genre. This indicated that apart from being unsure of the distinction between text type and genre, they were not used to (uncomfortable with) identifying the text type during a reading lesson and linking it to the purpose for reading (as required by
the intervention and the curriculum). Teacher 4 (T4) shows that she is aware of text type, but does not use the word ‘text’ which she just introduced to the learners. Teacher 5 (T5) accepts ‘story’ as the answer for ‘text type’ – this leads to confusion in her lesson a few sentences later (see discussion of classroom extract in 6.2.3.1). Another teacher was observed calling the text ‘the paragraph’ or ‘the reading text’ or ‘the reading piece’ (the latter was probably influenced by the Afrikaans use of ‘leesstuk’).

6.1.9.2 Text structure

In terms of text structure, the curriculum (RNCS-HL, 2002:75) states that Intermediate Phase learners must discuss “central idea, plot, setting, atmosphere and characters” and makes reference to the use of story maps to “track comprehension” (RNCS-HL, 2002:73). The research teachers did not seem to have knowledge of text structure (or perhaps referred to the concepts in a different way) or story maps (they received several examples of story maps during the Information Session but had to be reminded and encouraged to use it). Teacher 5, for example, asked me for the explanation of the word ‘plot’ before introducing the concept to her class, seemingly for the first time.

6.1.9.3 Putting language concepts into context

During initial observations for the intervention, as well as an observation of an Afrikaans reading lesson teachers continued to lapse into their existing methods for teaching reading. The Afrikaans lesson served as a good example because the teacher did not apply the intervention methods, probably because she regarded the intervention as something that applied to her English classes only, and did not yet recognise the concepts as generically applicable to all languages. During the initial observations teachers seemed to check their learners’ understanding of a text by asking whether everyone had enjoyed and understood it. Learners tended to answer in the affirmative automatically and in chorus; individual learners remained quiet if there was something they did not understand. Where teachers did discuss new vocabulary, it was done at a word level – i.e. isolated unknown words were identified (usually by the teacher) and their meaning explained without always putting it into context, after which the teachers seemed to regard their learners’ ‘understanding’ of the text as complete and moved on to answering questions about the text. Teachers seemed to struggle to break free from their “bottom-up approach” (Wilson, 2001)
which first focuses on issues such as decoding, spelling patterns and grammar before moving to the text as a whole (if at all).

6.1.9.4 Text-level processing

Teachers’ initial discomfort at working with a text as a whole was clear from the mechanical way in which they followed the steps in the Teacher Checklist. They did not seem used to determining text type and genre and establishing the purpose for reading in order to create a ‘framework’ for the meaning making to follow. Teachers’ initial struggle with, for example, the strategy of Activating Prior Knowledge, also highlighted their unfamiliarity with the concept of text-level processing and discussing and acknowledging learners’ experiences and opinions with a view to enabling individual meaning making. Learners were not asked for their thoughts on a particular topic – probably because teachers were used to a question-and-answer style of teaching with the teacher as the sole creator of questions. This seemed to be the case despite the fact that RNCS (2002:57) requires of the Reading & Viewing Outcome that learners must “… read and view for information and enjoyment, and respond critically to the aesthetic, cultural and emotional value of texts”. It must be added, however, that where teachers became more adept at strategy instruction (particularly Activating Prior Knowledge and Questioning) their ability to relinquish control and allow learners’ participation changed (see 6.2.2.4, extract dated 13/10; 6.3.3 for extract of Activating Prior Knowledge).

The absence of the pedagogic content knowledge identified in Table 12 seemed to influence – at least initially - how teachers took on reading strategy instruction as a new concept. The more ‘technical’ strategy instruction issues such as Questioning and Summarisation, although unfamiliar concepts to teachers and learners, seemed to be less of a barrier to effective strategy instruction than the identified knowledge in Table 12 they did not seem to have. Block & Duffy (2008:31) state that research has not yet found ways to develop methods that enable teachers to implement strategy instruction in such a way that all strategies “unite to become a single comprehension process”. From my observations it is certainly true that teachers seem to struggle with the Questioning Strategy if they are reluctant to relinquish control of their classes through changing their questioning styles, just like they seem to struggle to teach the Summarisation Strategy if they do not know the basics of summarising texts themselves. Most of all, however, my observations showed that the identified knowledge of language and text (Table 12) seems to provide the ‘thread’ that unites
strategies into a more unified comprehension process or at the very least enables an easier transition for teachers.

6.1.9.5 Existing research on knowledge specific to reading strategy instruction

During the Information Session before the start of the intervention the emphasis was placed on the concepts about strategy instruction that I knew to be new to teachers (based largely on the absence of requirements related to strategies in the curriculum document). Apart from time constraints and the specific ‘training strategy’ taken in this research (see 4.4), I did not go into much detail about linguistic knowledge I assumed teachers to have, and more importantly, I held Gersten et al.’s (1997:467) principle of “treating teachers as professionals with knowledge and experience” (including knowledge of curriculum requirements) uppermost in my mind. In fact, it was not so much that I assumed certain knowledge to exist in teachers than the fact that much of this knowledge was implied in the curriculum and very little, if anything, in existing literature about strategy instruction led me to question that specific knowledge is preferable for facilitating teachers’ take on of strategy instruction. Literature about teachers needing hands-on support for instructional change and improvement took precedence.

It seems that existing literature on strategy instruction does not focus on specific ‘desired’ knowledge required by teachers for strategy instruction, other than stating that ‘there is no single best way of applying a strategy’, that strategy instruction ‘is difficult’, ‘time consuming’, ‘requires time and effort’ and that ‘teaching fewer rather than more’ seems to be better. Furthermore, most strategy instruction research seems to have been conducted by researchers themselves; in other words, strategies were implemented by the expert and not the teacher. Books aimed at teachers that break down specific strategies into smaller parts and explain how to instruct them, such as Cairney, (1990), Morreillon (2007) and Kelley & Clausen-Grace (2007) to name a few, explain why strategies are necessary, describe in detail how to go about instructing a strategy and even provide an inventory to “learn interests and find out what [learners] know” (Kelley & Clausen-Grace, 2007:29); they do not, however, identify what teachers need to know for strategy instruction.

Lastly, the collaborative approach of the intervention supports this study’s view that learning is socially constructed; therefore, the objective of the ongoing support provided by the intervention was to assist teachers in changing their way of teaching
through practice and experience. I came to view having to provide support to teachers beyond introducing the aspects of strategy instruction as a contribution of the study, namely highlighting the kind of knowledge that could positively influence teachers’ take on of reading strategy instruction. Freeman and Johnson (1998:404) point out that language teaching is often done under the mistaken belief that “if you can speak English [a language] you can teach it” – a statement that implies that knowledge of language runs deeper than communicative competence and a statement that further amplifies the need for and importance of teachers’ knowledge of language.

6.1.10 Concluding remarks

In 6.1.1 to 6.1.9 the discussion centred on the factors that were identified as pre-existing influences at the research school, and which to different extents affected how teachers took on reading strategy instruction. It must be pointed out again that of all the *What* factors, *Teacher Knowledge* overlaps into the dicussion of the *How* phases the most strongly since it pertains to what teachers seemed to know or not know and the effect of their knowledge (or lack of it) on how they changed during the intervention. In other words, while it was possible to deduce some uncertainty in their knowledge about specific concepts during pre-intervention contact, the intervention itself served to confirm or amplify the knowledge areas that needed development.

The following section and its subsections will describe *how* teachers took on reading strategy instruction. When the sections that follow, it is suggested that the reader keep the *What* factors in mind, since they provide additional context for comments and observations and the unnecessary repetition of comments already made in 6.1.1 – 6.1.9.

6.2 How teachers took on strategy instruction

In order to provide some context for comments in this section about how teachers took on (or did not take on) in strategy instruction, two issues need to be emphasised: (1) the teacher training approach used in this study (which relates to the points made about teacher knowledge in 6.1.9 and the conditions for teacher change), and (2) the effect of the researcher’s presence in the research classes.
1. It must be reiterated that the training approach (see 3.7.4.2 and 4.4) followed during this intervention was done in a specific manner for a specific purpose. In short, one of the main research conditions of the study (see 4.1.2) was to use a collaborative approach to implementing strategy instruction instead of a researcher-led approach. In other words, rather than prescribing in great detail how teachers should go about teaching reading strategy instruction, they were instead given sufficient information about reading strategies to start strategy instruction within their own context and using their own teaching styles. The aim of the collaborative approach was to effect as much positive change in teachers as possible in regard to strategy instruction. In the sections that follow, therefore, where comments highlight teachers’ skills (or lack thereof) the intention is not to criticise the research teachers’ lack of certain skills rather than emphasise the need for such skills to enable effective strategy instruction. As pointed out earlier, existing strategy instruction research and theory is based mainly on teaching scenarios which include the availability of good literature, sufficient teaching resources and reasonable class sizes; these are not necessarily characteristics of the typical South African school and certainly not of the research school. Furthermore, the collaborative approach to strategy instruction used during the intervention was intended to differ from the DOE’s approach of informing and evaluating; instead the intervention was intended to represent a repetitive cycle of informing, supporting and observing. Since this study represents the creation of a framework towards strategy instruction in a South African environment, it does not necessarily represent a final and complete solution to strategy instruction, but rather the creation of a foundation for implementing strategy instruction with a view to engendering lasting (positive) change.

2. In order to increase the context of the comments in the sections that follow, it is necessary to reflect on my presence in the research teachers’ classes and the effect this may have had on the teachers and the outcome of the intervention. In terms of the training approach discussed in (1) above my objective was for teachers to accept me – to the extent that this was possible - as a collaborator, in other words, someone who worked with them towards implementing strategy instruction, rather than someone who evaluated what they did in a critical manner. However, my association with a tertiary institution and ‘representative’ of the intervention made complete acceptance at such a level difficult. The fact that I did not represent the WCED or school management did, however, make it possible for me to gain teachers’ trust and confidence to a large degree since they knew I did not report to the DOE, and that the intervention was part of research
and not something they would be ‘judged’ on by school management. In that respect a fair measure of collaboration was achieved and most teachers opened up to me about school and departmental issues (provided the discussion was not being recorded). In general, however, teachers seemed so used to having their performance evaluated by observers (such as curriculum advisers), that they found it difficult to switch to believing that their performance could be regarded as a contribution to an objective. Some teachers, therefore, continued to view my presence as judgemental; however, where teachers came to view my presence as collaborative their participation in the intervention yielded positive results.

As stated in Chapter 4 the research teachers were given a considerable amount of information about the reading strategies used in the intervention; this information comprised an information session and printed material which included information about the intervention strategies, example lesson plans and templates for using in class and a checklist for guidance while teaching. The information session positioned reading strategies in terms of reading and language instruction in general, and provided teachers with information about what would be expected of them during the research intervention. The research teachers asked for a week to prepare for their first lessons, whereafter I started my observations of their classes.

Anderson (1997:362) states that “whether teachers progress through different concerns and behavioural changes” during new implementations “should neither be assumed nor categorically dismissed”. Block & Duffy (2008:28) are of the opinion that teachers do “progress in distinct stages in learning to teach comprehension”. Although it was not the main aim of this research to study teacher change in general the data showed that from the initial information session to the last classroom observation, teachers’ reaction to reading strategy instruction was characterised by different phases of development. The teachers in this study were observed to move through four distinct phases, namely: (1) expectation, (2) implementation, (3) experimentation, and finally (4) independence. Each phase was characterised by specific actions and reactions from teachers, which are summarised in Figure 8 below.

Each of the phases represents a broad category that shows development over time; the characteristics in the right-hand column of each phase function as ‘sub-categories’ or ‘themes’ illustrated by references to transcripts from classroom observations. Because section 6.2 is quite long and the table of phases in Figure 8 is
presented at the start of 6.2, the characteristics of each phase will be listed below the phase headings where they occur for ease of reading. Although the characteristics have not been used as subheadings within the discussion of each phase, the discussions are generally structured according to the sequence of the listed characteristics.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Characterised by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectation</td>
<td>* Awareness of necessity for change (need for intervention)</td>
</tr>
<tr>
<td></td>
<td>* Need for quick solutions (unrealistic expectation of intervention)</td>
</tr>
<tr>
<td></td>
<td>* Confidence in ability to participate</td>
</tr>
<tr>
<td></td>
<td>* Eagerness to participate OR Forced participation &amp; reluctance to participate</td>
</tr>
<tr>
<td></td>
<td>* Disillusionment when intervention does not provide quick fix</td>
</tr>
<tr>
<td></td>
<td><strong>End of Expectation phase characterised by withdrawal OR progression to Implementation</strong></td>
</tr>
<tr>
<td>Implementation</td>
<td>* Uncertainty &amp; scepticism about concepts</td>
</tr>
<tr>
<td>(Phase 1)</td>
<td>* Strong need for structure &amp; support</td>
</tr>
<tr>
<td></td>
<td>* Lack of confidence in own abilities &amp; knowledge</td>
</tr>
<tr>
<td></td>
<td>* Concern about doing things “right“ or “wrong“</td>
</tr>
<tr>
<td></td>
<td>* Lack of adequate lesson preparation</td>
</tr>
<tr>
<td></td>
<td>* Attempting too much too soon</td>
</tr>
<tr>
<td></td>
<td>* Need for control of learner responses</td>
</tr>
<tr>
<td></td>
<td>* Resistance/reluctance to proceed (strong need for encouragement)</td>
</tr>
<tr>
<td></td>
<td>* Single, linear application of strategies</td>
</tr>
<tr>
<td></td>
<td><strong>... flows into ...</strong></td>
</tr>
<tr>
<td>Experimentation</td>
<td>* Continued need for structure &amp; support</td>
</tr>
<tr>
<td>(Implementation</td>
<td>* Increased insight i.t.o reading strategy instruction</td>
</tr>
<tr>
<td>Phase 2)</td>
<td>(conceptualising, internalising)</td>
</tr>
<tr>
<td></td>
<td>* Increased knowledge of texts &amp; text-related concepts</td>
</tr>
<tr>
<td></td>
<td>* Reducing need for control of learner responses</td>
</tr>
<tr>
<td></td>
<td>* Multiple, less linear application of strategies</td>
</tr>
<tr>
<td></td>
<td>* Improved lesson preparation (creating own lesson structures)</td>
</tr>
<tr>
<td></td>
<td>* More realistic expectations – recognition that teaching reading comprehension is a long-term process, requires repetition</td>
</tr>
<tr>
<td>Independence</td>
<td>* Recognition of links between intervention and curriculum</td>
</tr>
<tr>
<td></td>
<td>* Expansion of strategy instruction to other subjects</td>
</tr>
<tr>
<td></td>
<td>* Decreased need for support &amp; encouragement</td>
</tr>
<tr>
<td></td>
<td>* Expression of interest in teaching more strategies</td>
</tr>
<tr>
<td></td>
<td>* Use of reading strategy discourse</td>
</tr>
<tr>
<td></td>
<td>* Lesson preparation shortens as experience and knowledge increases</td>
</tr>
<tr>
<td></td>
<td>* Autonomy (unassisted performance)</td>
</tr>
</tbody>
</table>

Figure 8: Teachers’ Reading Strategy Instruction Phases
The four phases will be discussed below with reference to observations in each of the three research classes and their related teachers. For ease of reference, the three teachers will again be referred to as Teacher 4 (Grade 4), Teacher 5 (Grade 5) and Teacher 6 (Grade 6).

6.2.1 Expectation Phase

* Awareness of necessity for change (need for intervention)
* Need for quick solutions (unrealistic expectation of intervention)
* Confidence in ability to participate
* Eagerness to participate OR
  Forced participation & reluctance to participate
* Disillusionment when intervention does not provide quick fix

The Expectation Phase for teachers in this research intervention comprised the period from initial contact with the principal and teachers at the research school to the end of the Information Session (see 4.4). The Expectation Phase shows similarities with the Awareness and Informational stages in the CBAM Stages of Concern (Anderson, 1997:334). In the CBAM stages teachers act as follows: during the Awareness stage they have little or no knowledge about or interest in change, and in the Informational stage they become interested in learning more about the innovation and its implications. In this study, before the Information Session, the principal informed all teachers of the proposed research at a staff meeting. This prompted interest from teachers other than the Grade 4 to 6 English Home Language teachers who were required to participate. During the Expectation Phase of this study, all teachers, whether required for participation or through an individual desire or curiosity about the possibilities of the intervention, were eager to participate. It was clear that teachers showed awareness of the necessity for change for improving reading and reading comprehension and seemed to share a concern about their learners’ reading and comprehension abilities. However, it was equally clear that they desired a solution that would be quick and easy to implement and generally seemed to have unrealistic expectations of the intervention. They did not seem to understand comprehension instruction as a concept separate from teaching reading, i.e. whereas teaching reading has results that are immediately visible and measurable, comprehension is effectively an invisible skill that takes considerable time and effort to teach and learn. The research intervention was specifically designed in such a manner that it provided structure (a clear beginning and end), ample teacher support and a measurable outcome. However, as the Information Session progressed teachers began to realise that their expectation of receiving a ‘quick fix’ would not be
met, since although the intervention was designed to “fit within the details of day-to-day classroom instruction” (Gersten et al., 1997:468), it would require the application of new methods for which, at least initially, additional preparation time was necessary.

In general the Expectation Phase proved to be a delicate one. Teachers (and the principal during our discussions before the Information Session), had already made it clear how large their administrative burden was and how little time was available outside school hours for meetings with teachers. Any additional preparation (as required by the intervention) was viewed as an increase to this burden. To enhance a collaborative effort/relationship, I made it clear that teachers’ participation in the intervention was not something that they would be judged on from the school or Department’s point of view, and that they would be given ample support. McLaughlin (1987:173) states that “some balance of pressure and support” is essential during any implementation; pressure is required because most institutions and individuals are “allergic to change”, and support is needed to enable implementation. Throughout the intervention, when faced with a choice, I tried to opt for providing support over applying pressure; this may not always have led to 100% participation from all teachers, but where teachers did participate and accept the collaborative nature of the intervention their efforts led to clear results, both for them and their learners. Overall I found it perplexing that teachers who adhered so strictly to administrative requirements despite their belief that it added little value to their teaching, were reluctant to learn a new methodology to improve the critical skills they admitted their learners lacked. In unstructured discussions with teachers as the intervention progressed, their reasons for non-participation seemed to be a combination of feeling administrative burdens (see 6.1.4) compounded by class size (see 6.1.5), lack of resources (see 6.1.7) and teachers’ own expectations (6.1.8).

Perhaps further clarity about how the three research teachers participated (or did not participate) during the intervention can be found in their own words. Teacher 6, like his colleagues, expressed concern about his learners’ poor reading abilities, but unlike his colleagues, did not express interest in participating in the research intervention. Ultimately I managed to do two observations in his class (of which only one was related to the intervention). He commented to me that he was able to teach his grade “for an entire year without ever opening a book”. He had been teaching the same grade for a number of years at the time of the research and it seemed that he preferred not to change anything. In this respect he seemed to confirm Richter et
al.’s (2011) finding that teachers with longer service seem to remain uninterested in change and development. After one of the follow-up meetings with the three research teachers (approximately two months after the start of the implementation and after numerous attempts to include him in the intervention) I wrote the following in my observation notes: The principal has suggested that we leave [Teacher 6] out of the research; HOD and other teachers have made comments about his general negative attitude, regular late arrival at school and reluctance to try anything that requires a change in his routine.

Teacher 5, who was also the class teacher of the Experimental Group, had approximately 14 years interrupted service. After initially teaching for a few years, she left teaching to work in an administrative capacity in the private sector for a number of years before returning to teaching. In one of our post-observation discussions she made the following comment: Teaching isn’t just a job for me, I enjoy it and I feel I want to be there for the learners. That’s what it’s about for me. [Skoolhou is nie net ‘n werk vir my nie, ek geniet dit en ek voel ek wil daar wees vir die leerders. Dis waaroor dit gaan vir my.] Teacher 5 achieved considerable success in the intervention despite having to do so under the same circumstances as the other research teachers. Although she complained about her administrative burden as often as her fellow teachers, this did not seem to prevent her from participating in the intervention to the same extent that it did the others. As the intervention progressed it became increasingly clear that she had a willingness to change and desire to learn which seemed to encourage her positive attitude towards the intervention despite her regular workload.

Teacher 4 had approximately 18 years of teaching experience at the time of the intervention. She was very organised, had an extremely neat and tidy classroom and was punctual, detail-oriented and seemed to prefer clear guidelines for what was required from her. She often made comments that implied the current teaching system (outcomes-based education) did not produce the results she was used to (Before OBE our children could read). Of all the research teachers she seemed the most burdened by the teaching conditions at the research school; this was probably compounded by the fact that she taught a class of 49 learners. More than once she made the comment I’m not convinced I want to be a teacher anymore, not because she did not like teaching as a profession, but because of what, for her, teaching as a
profession had come to represent: an overwhelming administrative burden and a curriculum without clear guidelines.

In summary, the end of the Expectation phase signalled one of two responses from teachers: withdrawal of participation or progression to the Implementation phase.

Note: text boxes have been inserted in places in the classroom extracts to enable direct comments on specific elements where they occur.

**6.2.2 Implementation Phase 1**

* Uncertainty & scepticism about concepts  
* Strong need for structure & support  
* Lack of confidence in own abilities & knowledge  
* Concern about doing things “right” or “wrong”  
* Lack of adequate lesson preparation  
* Attempting too much too soon  
* Need for control of learner responses  
* Resistance/reluctance to proceed (strong need for encouragement)  
* Single, linear application of strategies

The Implementation phase was characterised by teachers’ first attempts at strategy instruction and a growing awareness that more was expected of them than they had anticipated; in other words, they realised that change was required and that they had to leave the comfort of their familiar routines. The research teachers’ uncertainty in the Implementation Phase shows some similarity with the Personal stage of the CBAM Stages of Concern during which teachers show strong anxiety about their ability to implement the change (Anderson, 1997:334), as well as the CBAM Level of Use stage called Mechanical (when teachers begin to put the instructional change into place but struggle with the logistics of implementation and the acquisition of new teaching skills (Anderson, 1997:335).

Despite the fact that teachers had been given sample lessons for each of the strategies to ease them into teaching strategies, and although they had access to researcher support, they nevertheless initially displayed certain characteristics during the first phase of Implementation. The characteristics that manifested most strongly in all teachers are discussed below.
6.2.2.1 Uncertainty and lack of confidence

Although teachers used the checklist (see Addendum A) from the outset they nevertheless displayed some uncertainty and lack of confidence, which - early on in the intervention - manifested in their use of ‘distancing vocabulary’ when referring to elements of the intervention with which they were not yet completely comfortable. Examples of distancing vocabulary included the following:

T4: Now you see how important this thing is to you, before you start reading you must ask yourself why are you reading the thing ... “This thing” is a reference to the checklist, which Teacher 4 had given her learners and had asked them to read out loud. As mentioned in 5.2.2.1, Teacher 4 seemed to prefer clear guidelines for whatever she taught, and because she herself still viewed the use of strategies as a linear, sequential process, she seemed to feel that providing the learners with a copy of the checklist would enhance their understanding and her instruction. The checklist was, however, not really intended for learners, which meant that they did not relate to what they had just been asked to read. The concepts were new to both her and her learners, and during the lesson that she made these comments, Teacher 4 sensed that she was not convincing learners of the value of the steps in the checklist, a feeling that was probably compounded by my presence in her class.

T4: And when you are reading anything I give you, you must ask yourself if you understand what you are reading and all that stuff. This statement was made later during the same lesson described in the comment above and serves to emphasise Teacher 4’s uncertainty and lack of conviction about what she is saying.

T4: We did summary already, OK, according to the pages. “The pages” are a reference to the teacher information and teacher checklist. This comment was made during a lesson observation about the Questioning strategy, and while she was addressing the learners when she made the comment, she seemed to want to indicate to me that she had already addressed the Summarisation strategy on a previous occasion when I had not been present. In other words, she was trying to indicate that she had ‘followed the steps’ on the checklist.

T5 to researcher during a lesson: So for now I’m going to do this little thing ..? [So ek gaan nou maar eers hierdie dingetjie doen ...?] Teacher 5 is also referring to the Checklist, and specifically the Clarification strategy. She made this comment during one of her first lessons when she still adhered strictly to the checklist sequence. In
this specific lesson she was teaching the Questioning strategy, and during the course of the lesson she began to question whether she should rather teach one question type instead of three in the same lesson, since she sensed that attempting to teach three at once was confusing her learners. She stopped her lesson to confer with me (her feeling of rather teaching one question type was indeed correct) and then, as she started to continue with the lesson, she glanced at her checklist and saw that she had ‘not yet done’ the Clarification strategy. Although there was nothing wrong with her instinct to simply continue without doing the Clarification strategy, she hesitated and then made the statement referring to “this little thing”. Using these words seemed to be an effort to try and minimise what she regarded as an ‘oversight’ while hiding her uncertainty about whether to use her instinct or stick to the checklist sequence.

6.2.2.2 Doing things ‘right’ or ‘wrong’

Teachers’ process of change during the Implementation Phase was also characterised by a concern with doing things the ‘right’ or ‘wrong’ way, something that was probably highlighted by my presence in their classes and the fact that, at least initially, they did not view their relationship with me as collaborative. Their concern with doing things right is highlighted by the following examples, all of which were directed to me during lessons:

T4: OK, am I on the right track? This question was asked during the third observation of her lessons. However, it was the teacher’s first observed attempt at teaching summarisation and she seemed to be struggling with the concepts (refer excerpt dated 27/10 for extract from this lesson).

T5: So I guess it’s OK if I continue with the questions now? [So dis seker OK as ek nou met die vrae aangaan?] A question asked during the second observation of the teacher’s lessons and related to her concern about doing things in the ‘right order’.

T5: And then I was thinking of also giving them … you understand … this piece … [En dan het ek gedink om vir hulle … jy verstaan … hierdie stuk te gee] and a bit later in the same lesson So I guess I can continue with …? [So ek kan seker aangaan met …?] These comments were made during my third observation of the teacher’s lessons. The teacher had prepared her own handout for the lesson, but because she had felt the need to consult with me during the lesson about her approach to
teaching the Questioning strategy, she seemed to feel the further need to check whether her next step was the right one, and whether her handout was appropriate.

T6: *How’s it going so far?* Teacher 6 asked this towards the end of the lesson while learners were answering questions in writing on their own. After asking the question, he started to walk away, then turned around, came back and added: *You know, when someone sits in on your class, it always ... it always makes you feel like you’re being a student teacher. I used to have a supervisor, that time when I was a student teacher, Mr X, I mean he was from that old school, you know, black or white, ‘reg of weg’, you know, things had to be done right.* (Teacher 6’s comment seemed to summarise how teachers felt about any observers in their classes, namely that they were being evaluated; this feeling seemed to be compounded by the way curriculum adviser’s visits were viewed by the teachers. For example, on one occasion Teacher 5, after a visit by a curriculum adviser to evaluate her implementation of a new reading methodology, sent me a text message stating “I was very stressed, but it went well”).

The research teachers’ concern about doing things ‘right’ seemed to be alleviated considerably by the use of the teachers’ checklist (see Addendum A). The checklist divided the strategies used in the intervention into Before, During and After Reading and presented them in a sequence (although the sequence was not mandatory). The ultimate aim of strategy instruction is to equip learners with a range of strategies which they learn to use independently and interdependently; however, since the concept of reading strategies was new to teachers they could not realistically be expected to teach strategies interdependently from the outset. Because of this, and in conjunction with the research aims of the study (see 4.1.2) the checklist aimed to provide teachers with some initial structure and guidance in accordance with the requirements of ‘adequate technical support’ and ‘sufficient structure and guidance’ as listed in 3.7.4.2 and 4.4.

Two things need to be mentioned at this point. Firstly, teachers’ use of (and need for) the checklist initially increased their concern about doing things ‘right’. Although they had been told that the checklist was a guide rather than a set sequence, they had not yet contextualised and internalised the separate reading strategies, and therefore viewed the ‘sequence’ in the checklist as the only ‘right’ way. Secondly, teachers’ need to check whether they were doing things right was not in my view a negative
issue; indeed, it formed part of the collaborative relationship I had hoped to foster with them.

6.2.2.3 Controlling learners’ responses

Teachers’ instruction during the Implementation phase was further characterised by a need to control their learners’ responses; their need for control seemed to be motivated by two things: (1) the fact that providing predominantly teacher-led instruction was their default teaching style, and (2) to compensate for learners’ possible ‘wrong’ answers while I was present in their classes. Control of responses ranged from slightly punitive styles to complete control of the lesson discussion.

T: Right. If you look at the text in front of you, what is the purpose of … why are we reading this text? Why do you think?
[Learner attempts to answer without putting up his hand]
T: No, you must put up your hand!
[Teacher turns to another learner whose hand is up]: Yes, John?
L: To learn, miss
T: Yes, to learn.
Teacher continues with lesson.

The example above represents a form of control used by all teachers, and although it at times bordered on punitive (purposefully ignoring learners whose hands were not up when they spoke), I could understand their need for using it. In classes of 35 to 49 learners (see 6.1.5) it is difficult for teachers to maintain a level of silence that enables effective teaching. Having an effective two-way discussion (as is preferable during certain stages of strategy instruction) is all but impossible in large classes, and requires very specific skills from teachers and strict discipline from learners. Furthermore, apart from controlling a large class for the sake of maintaining a level of noise that allows teaching to take place, it is difficult for teachers to identify non-participating learners amidst a large number of uncontrolled learners.

Teacher 6 used an almost military-like teaching style to control his class, illustrated in the following excerpt from one of his lessons. The lesson was a language lesson about a poem. The poem was well chosen, since the poet describes a community in difficult socio-economic circumstances, similar to the suburb in which the research
school is situated. The teacher did not introduce the poem in any way, and once the printed handouts had been distributed, started the lesson by asking a learner to read the instructions on the handout. After the learner read the instructions, the teacher allocated each stanza to different learners to read out loud. The learner who was allocated the first verse read it out loud while the class listened followed by the other learners who had been given a verse to read. Once the last verse had been read, despite the poem providing ample opportunity for discussion and activating prior knowledge the teacher made no attempt to ask the learners whether they could relate their own circumstances to those described by the poet, nor did he make any attempt to clarify anything that the learners may not have understood. Instead, the teacher immediately started by stating the following:

(24/08) T6: This poem is basically about the community that we live in. And most of you have been staying in this community now for the last few years … so your experiences will be similar … your experience will be similar to the … to the next child that’s sitting next to you, because you’ve all seen what is happening in this community.

T6: Now I want to see hands and I want you to tell me what are the … and I want us to speak about … firstly let’s speak about the negative things that is happening in the community, that is breaking this community down, and then we going to talk about the positive things that is happening in the community. Right, I want to see a few hands and I want you guys to tell me what are the negative things that you see on a daily basis … that is a problem in this community.

What is evident from the excerpt is that the teacher does not ask questions but rather issues instructions (Now I want to see hands and I want you to tell me what are the … and I want us to speak about …), offers his own opinion without giving learners the option of offering theirs or differing from him (Right, I want to see a few hands and I want you guys to tell me what are the negative things that you see on a daily basis … that is a problem in this community) – this leaves the learners with no choice but to offer only negative examples. The teacher also continuously uses the first person ‘I’ instead of including the learners with a more inclusive ‘we’ or even ‘you’. Where the teacher does ask a question it is not an open-ended question which could allow for a non-fixed set of learner responses, but rather a Yes-No question which is answered by the class in unison. An example of this is found later in the same lesson when various learners put up their hands and offer answers related to
negative influences in their community, such as crime, drug use and violence. A learner offers "pollution" as an option, to which the teacher responds:

T6: Pollution. Is pollution a problem here in the area?
Class: Yes, sir!
T6: OK. Are the streets quite dirty?
Class: Yes, sir!
T6: … are … do we have … where, where people are just dumping their dirt wherever?
Class: Yes, sir!

The aforementioned extract represents an extreme example of a teacher’s attempt at controlling learners’ responses and was not the norm in the classes I observed; it is also necessary to acknowledge that Teacher 6’s already controlling teaching style was probably reinforced because he was being observed. In general, most teachers used the form of control illustrated by the first example earlier in this section (a teacher ignoring the response of a learner who did not put up his hand before speaking). None of the teachers I observed ever completely relinquished this form of control; however, with Teacher 5, who progressed the furthest and fastest in the intervention, I did observe a change in the manner in which the control was exerted. The change was subtle and is difficult to prove with written excerpts, since the change manifested mostly in her tone of voice and overall demeanour. Where she initially treated learners who spoke out of turn rather harshly (as most teachers did), she seemed to grow more tolerant of ‘shouting out’ as her confidence in strategy instruction grew (see 6.2.3), and importantly, as she seemed to increase her level of text preparation. In other words, as she learnt to read and interact with the text in detail during her preparation, she became more secure in allowing ‘wrong answers’ during instruction.

6.2.2.4 Preparation and attempting too much too soon

Preparation, or the lack thereof, seemed to be a crucial factor during the Implementation Phase. Teachers seemed to underestimate the ‘depth’ of the knowledge (see 6.1.9) and preparation required to teach the different strategies - in most instances this led to teachers attempting to do too much too soon. A simple example of a teacher’s lack of adequate preparation is provided below. The excerpt was taken from the fourth observation of the teacher’s class. During the preceding weeks I had realised that teachers were not familiar with the concept of text genre,
other than distinguishing between fiction and non-fiction, and had provided them with additional information about different genres.

(26/8) T5: What is the text type? Is it a story, or is it ... um ... is it factual? Is this a story or is it factual?
T5: Um ... Brenda?
L: It’s a story, miss.
T5: It’s a story. Right. It’s a story.
T5: (hesitates): Um. There’s just something I’d like to say about this. This is a ... um, um ... a parable. OK? And usually ... a parable or a fable ... so that we learn a lesson from it ... from such stories, OK?
T5: This is just ... just for the sake of interest. This is a parable, and usually from um ... um .... When we read a st... a parable, we, we, you learn a lesson from it. So while you reading, while you busy reading and doing the questions, you must try and figure out what the lesson in this story is.

*Without any further discussion, the teacher continues with the Questioning strategy.*

Teacher 5, while she had grown used to determining the text type with her learners during strategy instruction, was not yet familiar with including the concept of genre. Although she clearly remembered our discussion about genre she only realised midway through her introduction that the concept was especially appropriate for this lesson (the text was a parable) and could, therefore, be included.

The effect of lack of preparation and interaction with the strategy instruction concepts is better illustrated in the following two contrasting examples from Teacher 4 and 5²¹. Both examples were taken from lessons during which the teachers were attempting to teach the concept of summarisation *for the first time*. However, whereas Teacher 5 had thought the concepts through and conveyed them in a language that learners could understand, Teacher 4 had not yet made the same connection with the strategy concepts.

²¹ These specific extracts can also be considered representative of teachers’ different levels of conceptualisation of strategy instruction concepts as their instruction progressed. The extracts could, therefore, also be used as examples in the Experimentation Phase (see 6.2.3). However, since the extracts come from lessons in which the summarisation strategy is being taught *for the first time*, they have been used as examples in the Implementation Phase.
Teacher 4: Summarisation strategy

The teacher was attempting to teach the class how to summarise a paragraph. By the teacher’s own admission her class did not know how to summarise any length of text. The reading text (fiction) that was used was entitled “Looking for a new car”, and was a rather lengthy story of a family who visited various showrooms in search of a new car. The teacher started the lesson by referring directly to the notes provided to teachers during the Information session; she had written the steps (related mostly to the summary of non-fiction texts) on the blackboard.

In this extract Teacher 4’s actions seem to fit the behaviour described as part of the Mechanical stage in the CBAM Levels of Use (Anderson, 1997:335). In the Mechanical stage teachers perform teacher-centered changes to make the innovation more manageable and easy to implement. Teacher 4 is attempting to teach Summarisation, but has elected to rely on her notes rather extensively without attempting to translate the information into a language that the learners can understand.

(27/10) T4: You take all the key words, and you take, uh, the first and the last sentence … normally focus on the topic and all that stuff. If you make it short, you summarise it. OK? Right, now … now let’s, let’s write the steps down.

T4: OK. Let’s start reading. Step one. Come, start reading with me.

Class reads in unison: Identify the …

T4: interrupting: You identify the problem … (jumbled, indistinct words) One word for a few words …

T4: OK. We identify the topic first. Step number two?

C: (reading from the board): Look for key words to focus on the topic.

T4: Right. We look for key words to focus on the topic. Now when do we, where do we find our key words? In the …?

No response from the class

T4: In the paragraph.

T4: And, the first and the last sentence usually focus on the topic. OK, but we’ll get there.

Teacher 4’s use of technical terms such as ‘looking for key words’, ‘identifying the main idea’ without explaining what these terms mean, serve to confuse learners, who in turn do not respond to her questions.

Teacher 4 also displays the following characteristics of the Implementation Phase as listed at the start of this section:

- Scepticism about concepts (“… and all that stuff”)
- Uncertainty & hesitation
- Strong need for structure and support (over-reliance on notes, requiring learners to write steps down rather than discussing the steps)
T4: Right, step three. Right, step three tells us we must identify the main idea. Right, you must identify the main idea. How do you get the main idea?

No response from the class.

T4: (to herself): Right. Didn’t read that yet.

T4: (to class): Just write the steps down for me, then we go on.

Class is given some time to write the steps down. Teacher then continues:

T4: To identify the main idea, we ask ourselves the questions. What does this paragraph say about, about say for instance (indistinct words) looking for a new car. Now to identify the main idea for me, what does this paragraph say to us?

No response from the class. Teacher refers to Information session handout.

T4: … and you look at the statements about the topic. OK? What can you say about looking for a new car?

No response from the class. Learners continue writing down the steps in their work book.

T4: Right, let’s go over to step number four. [Teacher writes step number four on the blackboard, while learners copy it into their books]

T4: And step number … the last step is step number five …

After writing all steps on the board:

T4: There’s our steps. Are you almost done? Just write this for me down, because we’re going to use it in all our other texts.

After giving the class some time to write down the steps, the teacher continues the lesson by handing out the reading text.

T4: OK, let me give you the page. We going to read this page now. Focus on the page first … (learners stop writing and the class gets ready to read the text on the page that was handed out):

T4: Come, we going to read this now. Let’s focus on the page. Then, changing her mind, she turns instead to the steps on the blackboard:

T4: OK, let’s read the steps first. Read for me the steps again?

T4: How do we summarise a paragraph?

In contrast to Teacher 5 (see following pages) Teacher 4 does not ask for assistance from the researcher and although she has clearly referred to her notes she chooses not make use of the simplified sample summarisation lessons provided by the researcher.

Teacher 4’s lack of confidence is displayed in her repeated hesitation and changing her mind mid-way through an instruction.

- Lack of confidence in own abilities & knowledge (repeated hesitation, lack of explanation of concepts even when it is clear that learners are not responding at all)
- Lack of adequate lesson preparation
- Attempting too much too soon – the text used in this lesson (her first about summarisation) was quite long.
Class reads steps while teacher says:
T4: We identify the topic, we say one word for a few words. In step two we look for key words about the topic. What is key words?

No response from the class
T4: You take the main word out, OK? And then we form a sentence around that main word, I told you what key words are.
T4: Step number three is “We identify the main idea” – what is the passage, the whole passage about.
T4: Step number four: you must prove your main idea. How do we prove our main idea? Hey?

No response from class. Teacher searches her handout for the answer:
T4: You must look for detail in the passage to prove your main idea…

The lesson continues like this until the teacher has read out the steps on the blackboard to the class. Thereafter, the text is read by the class in unison, and the teacher proceeds to attempt a summary of the whole text, as well as certain paragraphs. She becomes increasingly confused with summarising the whole text compared to summarising a paragraph, and the lesson effectively becomes a monologue during which there is little or no response from the learners and very little, if any, understanding of summarisation. As noted in my observation notes during the lesson: Teacher seems unprepared and unsure. Learners unengaged. The lack of success in this lesson seemed due mainly to inadequate preparation, and the fact that she did not seem willing to ask for assistance. Had she prepared better (or asked for support), she would have realised that the steps she was teaching her class were more suited to summarisation of non-fiction (a more difficult type of summarisation and, as discussed with teachers, not a recommended starting point for teaching summarisation skills) and that simpler, easier examples for summarising fictional texts existed in her Information Session handouts.

By contrast, the following excerpt from Teacher 5’s class illustrates a different approach to teaching summarisation and the effect of preparation and a willingness to use researcher support.
**Teacher 5: Summarisation strategy**

The text used in this Grade 5 lesson was a short story about children getting lost in the woods, but who were eventually found by their father. The teacher deliberately did not provide a title for the text. Following on her experience of strategy instruction from previous lessons, the teacher started the lesson by applying other strategies, namely determining the Purpose for reading, and determining the Text Type. She then read the text out loud to the class, wherafter she clarified any words that learners might not know by discussing each word with examples. In other words, by the end of the discussion and before starting with Summarisation, learners seemed comfortable with the text content. In this excerpt, Teacher 5 seems to be showing the effect of a change in her approach to ‘right’ or ‘wrong’ answers (probably brought about by the Questioning lessons she had already given before attempting this Summarisation lesson).

(13/10) T5: Right, I want you to read through the story. Then there’s two questions. I want you to give the story a title …. Maybe we must just do that orally quickly.

T5: What would be a … OK. This is, this we call summarising, or summing up. Now why would we summarise any story, why do we do summarising?

*No immediate response. Teacher waits for answer, then says:*

T5: You must try, try. You want to try?

T5: Brenda?

L: To see if you know what you have read, miss.

T5: Yes, that would be … to see if you know what you’ve read. Right, that is a very, that is a good answer, to see if you understand what you have just read. If you can sum up a story you have read, it shows that you understood what you have read.

T5: Why else would you sum, sum a story or anything up?

L: To make it shorter

T5: Right, to make the story shorter. Summing up means to make it shorter (*interrupts herself to discipline a child*). To make it, uh, to make a text shorter.

T5: Right. It would also help if you had to study for an exam. Not just stories, you don’t just summarise stories, it could be any one of your learning areas, right.
L: Natural science
T5: Natural science, physical science, life orientation. If you are given a text which is very long, then you have to study that work and you can summarise that text ... it will help you to study. It will help you to learn better. You can make it shorter for yourself. Right. So it also helps you to learn. It helps you to make something shorter, it helps you to learn. Right, so that is why we always summarise something.

T5: Right, so now I want you to ... Read the story, but have that first question in the back of your mind ... I must supply this story with a title, just maybe one sentence, in one sentence you must give me a title, it can be one word also, right? For the main idea of that, of that story. So keep that in your mind while you read the story.

Learner asks a question (indistinct)
T5: A name, a name, a title.

Class seems ready without re-reading the story, and various learners put up their hands.

T5: Do you have a, a, Lee, what is your title?
L: Lost in the woods
T5: Good! Lost in the woods

(A few learners state that they have the same answer)
T5: That is fine if more of you have the same answer. Sam, what is your answer. It can be different, there can be lots of different answers. Deep in the woods. Right, that is how he summarised it, that is the title that he gave to that story. What else?
L: Scary in the woods
T5: Scary in the woods, right. Melissa?
L: Lost and found
T5: Lost and found ... because ... why does she say “lost and found”?
L: (indistinct answer)
T5: Because the daddy found them in the end. Right.
T5: Who else has another title for us? Yes, Keila?
L: Dark in the woods.
T5: Dark in the woods. Yes, that is her title.

T5: If you had to give just one word for, for … as a title, what would you say?

L: Lost

T5: Lost. Right.

T5: Right, you’ve given a title for the story. Now look at question two. Question two says: Tell the story in your own words using only 30 words or less. Thirty or less … not more than thirty …

Learner asks question (indistinct)

T5: Not your own story, from this story. You summarise it for me.

A short discussion follows during which the number of words is discussed and it becomes clear that not all learners are entirely sure what to do. The teacher continues by explaining:

T5: Only the important things. To summarise means you take out just the important things. The important things would be what? The different important things in the story that you would mention. What is the first thing that you would name?

L: The character

T5: The character, very good, the characters. So you must mention the characters, the main characters in your story. Right, so that you would mention when you summarise the story for me.

(Teacher becomes uncertain, discusses how to continue the lesson with the researcher and decides to continue using the simpler version of the “Story Map” principle of Beginning, Middle and End as the basis of the summarisation).

T5: So, so, when you summarise the story, look at the beginning, the start of the story, the middle, and the end. Right. So you can just name the important points in the beginning, the middle and the end.

Teacher 5 then continues to ask for verbal one-sentence summaries of the beginning, middle and end of the text. This proves to be a successful attempt at scaffolded instruction, because learners are given an opportunity to practice the concept verbally.
in a group discussion and provide accurate one-sentence summaries of each paragraph. The lesson is concluded by the learners writing their responses down.

While it cannot be said that the Grade 5 learners were completely comfortable with the concept of summarisation at the end of the lesson, the attempt by Teacher 5 at teaching summarisation can be considered more successful than that of Teacher 4. Teacher 5 prepared for the lesson by selecting a short, easy text that would not challenge learners too much and increased the possibility of successful summaries. She ensured learners understood the content of the text before starting the lesson, and explained the purpose of summarising before starting the lesson.

Overall, the quality of lessons observed during the Implementation Phase was determined to a considerable degree by teachers’ preparation and internalisation of strategy instruction concepts combined with their willingness (or unwillingness) to use the support that had been offered to them. Teacher support came in two forms: the checklist and sample lessons together with information provided during the Information Session, and support from the researcher. The checklist was intended to provide the structure and safety that teachers seemed to require during the period of uncertainty that each of them experienced in the Implementation phase. The sample lessons were intended to form a type of teacher scaffolding which provided teachers with sufficient support (step-by-step descriptions of how to proceed in their instruction of a particular strategy) until they became comfortable enough with reading strategy concepts to venture beyond the set structure.

6.2.2.5 Teacher change in Implementation Phase 1

Overall the three teachers showed distinctly different reactions to the changes required from them by the research implementation. Teacher 4 started the intervention with enthusiasm, albeit in a very structured manner. She wrote some of the strategy concepts on a poster and put this up in her class and provided her learners with information to paste into their workbooks. During observations of her class she made statements such as *Speak in full sentences ... don’t give me key words* in response to a learner’s answer, or *This is based on your prior knowledge, hey?* These utterances indicated that she was indeed familiar with strategy instruction terminology (as discussed during the Information Session and provided in the teacher material); however, the words in bold in her utterances link to the comments made about the excerpt above, namely that she had not yet internalised and contextualised
(see 6.2.3) the concepts in a manner that made it understandable to Grade 4 learners.

Teacher 4, in particular, seemed to take a severe view of ‘making mistakes’ and ‘getting it right’, and her unwillingness to ask for assistance (or accept the assistance offered) seemed to cause her to gradually withdraw rather than risk ‘failure’. While she did refer to her Information Session notes, she chose not to use the sample lessons provided during the Information Session – the scaffolded nature of the sample lessons may well have alleviated some of her anxiety about teaching new concepts. Based on observations of her classes I had already considered the fact that a different training method would perhaps have suited her better. When asked during a feedback session with the research teachers what was needed to make her lessons more successful, she maintained that “more training” would help. However, when I offered additional training sessions for her, she repeatedly refused the offer by saying I’ll be OK, I’m just so busy, referring to the ‘admin burden’ (see 6.1.4) that all teachers complained about.

As pointed out earlier, Teacher 4 taught a class of 49 learners (see 6.1.5) which seemed to increase her need for control. In fact, during the very first observation of her class I made the following note: Class size (49) makes teaching difficult! Teacher 4, like most teachers, seemed to feel that the quality of her teaching was represented by how quiet/disciplined her class was, especially when she was being observed. In Teacher 4 the need for displaying control was compounded by my presence and teaching a new methodology, which manifested in her attempt at controlling class dialogue through a monologue-style of teaching and not providing learners time to provide answers to her questions. I made the note ‘Teacher should wait longer for answers, very fast to move on’ during one of the first observations of her class. In general Teacher 4 was burdened with considerable amounts of marking, preparation, administrative work and a constant struggle to maintain discipline in an oversized class – these issues seemed to prevent her from leaving the security of her routines to attempt something new, especially once she realised that reading strategy instruction required more preparation and existing textual knowledge than she had anticipated. The pressure she seemed to be experiencing was hard to ignore - if teachers are consistently bombarded with new policies, information and administrative requirements from the Department of Education without sufficient training and follow-up support, while at the same time having to teach oversized classes in a severely under-resourced environment, it is not entirely surprising that
they prefer to remain in the ‘safety’ of familiar methods, even if those methods are not proving entirely successful.

Teacher 5, however, persisted with strategy instruction despite uncertainty about her ability to do so and clearly not (yet) enjoying the process. As had been recommended during the information session, she started her first few lessons by using the sample lessons and other resources she had been given. Her initial lessons were characterised by constantly referring to the checklist, a strong concern about doing things ‘right’, asking for regular assurance and a growing realisation that she needed to prepare for lessons in far greater detail than she had been used to. Her initial lessons were further characterised by a strictly linear teaching of reading strategies (one after the other according to the checklist), accompanied by a need to control learner responses. During the first observation in her class, I made the note “Patient, waits for answers” in reference to the teacher; her natural patience was, in my opinion, a factor that contributed to the success of her instruction. Despite needing structure and being concerned with doing things ‘right’, she did not rush her learners, which gave them time to respond; receiving positive responses from learners seemed to create a positive cycle of instruction and response which served to increase Teacher 5 and her learners’ confidence. Teacher 5 continued to consult me in most of her lessons and phoned me for assistance on two occasions. Since she came to her classes well prepared (she used different text genres, created her own handouts and in one instance even used two texts in one lesson) I viewed her request for support as a positive step. In fact, during one of the last observations of her class she made the following comment: I wonder if we must first let them read it again and then we can see ... [Ek wonder of ons nie hulle dit eers moet laat lees nie en dan kan ons sien ...] – it was the first time she used the pronoun ‘we’ instead of ‘I’ and to me it signalled a level of acceptance of my presence and role in her class that neither Teacher 4 nor 6 achieved.

Teacher 6, as has been mentioned before, did not seem willing to change or participate in the research intervention. I managed to perform two observations in his class, of which only one was related to reading. Personally I regarded Teacher 6’s resistance to change as disappointing, since he had a good rapport with his learners and, as shown in Chapter 5, a class with a considerable number of strong readers.
Overall, where teachers persisted with the Implementation phase, their attempts (Teacher 5, and to a limited extent Teacher 4) showed increased insight into strategy instruction concepts (*change in teacher knowledge*), and their classes were increasingly marked by moments of surprise at their learners’ unexpected responses to strategy use (*an indication of a change in teachers’ expectations of learners*) and increased enjoyment of and a growing enthusiasm for strategy instruction (see 6.1.7 and 6.2.4 for examples). The teachers (Teacher 4, but more specifically Teacher 5) who persisted long enough to experience these positive moments progressed well with strategy instruction with little need for encouragement, and their efforts seemed to develop naturally into a kind of ‘advanced’ Implementation Phase; a phase that was characterised by experimentation with lesson content and structure as their use of strategy instruction progressed. It was also a phase where teachers’ knowledge (or lack thereof) and approach to reading strategy instruction started to show a clearer effect on the implementation of reading strategy instruction.

6.2.3 Implementation Phase 2 (Experimentation)

- Continued need for structure & support
- Increased insight i.t.o reading strategy instruction - (conceptualising, internalising)
- Improved lesson preparation (creating own lesson structures)
- Increased knowledge of texts & text-related concepts
- Reducing need for control of learner responses
- Multiple, less linear application of strategies
- More realistic expectations, recognition that teaching reading comprehension is a long-term process, requires repetition

Implementation Phase 2 was characterised by instances of change (or lack thereof) brought about by experimentation with reading strategy instruction through increased application. Teachers reacted differently to increased strategy instruction – development and change in the instruction of specific reading strategies in this phase sometimes occurred parallel to Implementation Phase 1, i.e. little or no change (Teacher 4 and 6 respectively) occurred, and sometimes in contrast to Phase 1 (most notably Teacher 5). Changes included change in teachers’ confidence to teach reading strategies, change in teachers’ insight into the links between the curriculum and reading strategies and change in teachers’ interaction with and knowledge of texts. The difference between Implementation Phase 1 and Phase 2 in this study could be compared to the CBAM Levels of Use called Routine and Refinement (Anderson, 1997:335). In the Routine Level of Use (a level which most teachers attain according to the CBAM model) teachers make a few changes and adaptations to the use of an innovation designed to enable its application. However, in the Refinement Level of Use some teachers assess the impact of the innovation on their learners and make
changes to the innovation or their use of the innovation based on its impact on learners. The characteristics of Implementation Phase 2, as listed above, describe the changes (where they occurred) that were observed in teachers; I will discuss them under three headings: teacher knowledge (and its effect on strategy instruction), teachers’ teaching approach (to strategy instruction concepts) and acceptance of support, and overall teacher change in the Experimentation Phase (Implementation Phase 2).

6.2.3.1 Teacher knowledge and reading strategy instruction

The strategies that seemed easiest for teachers to incorporate were establishing the Purpose for reading, Activating Prior Knowledge, reminding learners to check their understanding (Monitoring), Clarification (checking understanding after reading) and teaching Question types. However, as had started to become clear during Implementation Phase 1, the ‘technical’ aspects of strategy instruction (such as QAR question types, summarising texts) which were completely new to teachers, were not proving to be the ‘difficult’ aspects in strategy instruction, as I had expected. Rather, the aspects related to teachers’ existing knowledge (see 6.1.9) seemed to be the main aspects that learners struggled to grasp. A good example of an aspect that both teachers and learners seemed to struggle with, is text type, in other words, identifying the text as fiction or non-fiction, and more especially identifying the text genre.

The ability to identify text type seemed to elicit some uncertainty from both teachers and learners. Extracts that indicate a teacher’s uncertainty about how to explain text type and whether the text she is using is indeed fiction or non-fiction, are provided below (followed by further extracts related to text type from a different teacher). Both extracts below (1a and 1b) come from the same lesson by Teacher 4 observed a few weeks into the intervention; the first extract was drawn from the introduction of the lesson, and the second from a later part of the lesson after the text had been read and the teacher formally asked the class to identify the text type. The text was a fictional story about a giant.
**Extract 1a (27 October)**

*During the introduction:*

T4: *(Speaking fast without pausing)* Now, if you read the piece, if I give you any text piece, if I give you a piece now, I already gave it to you, right, you pasted it this morning in that book, and we didn’t do it yet, but we’re going to do it now. Now any piece of reading that I give you is called a text, hey? And then you ask yourself if it’s a fiction story or a non-fiction story. All our learning areas that you do, maths, natural science, social science all that stuff, are those texts that I give, that information, is it fiction or non-fiction?

T4: Is it fiction or non-fiction?

Class: Non-fiction

T4: Non-fiction. Why do you say it’s non-fiction? *(Without waiting for an answer, she continues)*: Because it’s the facts, right?

**Extract 1b (27 October)**

*And later in the lesson, after reading the text:*

T4: Right, now when you read this, did you enjoy it?

Class: Yes, miss

T4: Do you have an idea what it’s all about?

Class: Yes, miss.

T4: OK. Now, uh, what kind of text is it … based on facts, or is it fiction?

Some learners answer “Based on facts”. The teacher seems uncertain, hesitates, and says:

T4: Well, it can be a factual story … *(to researcher)* … or what?

Then, seeming to make up her mind, she says:

T: OK, let’s say it’s fiction.

T: Now let me ask you a few questions…

Teacher continues with lesson.

To further illustrate learners’ (and teachers’) ‘difficulties’ in grasping the concept of text type and genre, the following series of extracts (2a to 2d below) were taken
from sequential observations over different months (August to November) in classes by Teacher 5. Teacher 5 discussed the text type in every lesson I observed; these extracts, however, aim to indicate how learners continued to struggle with the concept and the teacher’s knowledge of genre at times seemed to compound this. The end of each extract indicates the point where the teacher ended the discussion about text type to continue with the rest of the lesson.

**Extract 2a (19 August)**

T5: What is the type of this reading piece, this text, what type of text is it?
L: A poem
T5: It’s a poem. Right, so is it a type of a story or does it involve facts?

*No immediate reaction from class*

T5: Come?
T5: Is this type of text, is it a story or is it factual?
L: Factual, miss
T5: So why do you say it’s factual, Lawrence?
L: Because it’s a poem, miss
T5: *(laughing):* Would you say, like, like the other learning areas, if I give you a ... a... a text, or a passage and it is something about technology or life orientation, would you say that is a story?
Class: No, miss
T5: No. What would that be. Facts! Something you learn, true facts, OK?
T5: Now would you say a poem would be the same as that?
Class: No, miss
T5: So it’s more about a story. OK.

The teacher does not contradict the learner’s incorrect answer, but instead leads the learner to the correct answer by asking more questions. This is an indication of the teacher’s growing confidence with the concepts of and level of comfort with text type concepts – despite the fact that her learners were not always successful in identifying the text type correctly. It also seems to indicate that she has increased her expectation of her learners (extract the answer rather than provide it to them).

**Extract 2b (13 October)**

The teacher starts the lesson by establishing the purpose for reading. Then, as she is about to ask the class to identify the text type, she hesitates, turns to me and asks (softly out of the learners’ earshot) “What kind of text?” Not being entirely clear whether she is asking whether she should continue by asking learners to identify the text type or whether she does not know what the text type is herself, I suggest that she ask the learners. Then, as she starts the lesson, I realise that she is trying to identify the genre
instead which prompts me to participate in the lesson – my utterances are identified by "R")

T5: What do you think, what kind of text this is?
T5: What kind of … is it fiction or non-fiction?
L: It’s fiction, miss
R: And is it a poem, or is it a story?
L: A story
R: A story
T5: It’s a story
R: How do you know it’s a story? What makes you say that? How would a poem look different to this [text/story]?
L: It would be in paragraphs
T5: What do we call those lines in a poem? Remember I told you in Afrikaans … ‘gedig’ (using Afrikaans word).
No immediate response from the class.
T5: It starts with a “V”, it starts with a “V”
L: Verses

Extract 2c (27 October)
T5: What is the text type? Who can tell me what the text type is?
T5: Have you forgotten? Text type … F … F … starts with an F. Is it fiction or non-fiction? What is the text type in front of you. What did we say, what is fiction?
L: It’s not true
T5: It’s not true, right. So would you say this is fiction or non-fiction? Fiction, non-fiction would be a …
L: True, miss
T5: Right, so what do you think that is, fiction or non-fiction? Yes?
L: Fiction
T5: Fiction. Now what kind of fiction is this? Andrew?
L: A poem
Extract 2d (10 November)

T5: What is the … what type of text is this?

No response from class. Teacher waits for a while, then asks:

T5: What is the text type? What type of text is this?

No response from the class. The teacher waits, eventually turns to researcher and says dryly “Ow ...” She then asks again:

T5: What is the text type?

T5: Text type? Kelly?

L: A story

T5: It’s a story. Nice. It’s a story.

T5: Um … what … Right. I’m gonna give you a clue. We can learn a lesson from this story. So what do you think, what type of story, what type of … story is this? You can learn a lesson from the story. There’s a lesson to be learnt from the story, then what type of story is it?

T5: Starts with an “F”. Yes, Bianca?

L: (Indistinct answer)

T5: Huh? Starts with an “F”

L: (Indistinct answer)

T5: Fiction?

L: Facts, miss.

T5: No, no, no. Listen to me. Listen to me. You get different types of stories, different types of stories. You said the text type … this is a story. Not fact, it’s a story. Right, now you get different stories as well. So last week, the last time we did also a … a … a story, then we said that story was a what? Can you remember?

L: A poem

T5: A poem. Now you get different types of stories. You get poems … now this story teaches you a lesson, it learns us a lesson … you can learn a lesson from this story. If we can learn a lesson from a story, what do we call that?

T5: Starts with an “F”. We did this before.

T5: F … A … (spelling out the first two letters of the answer)

No response from class

The teacher inadvertently accepts ‘story’ as the answer for text type – this leads to confusion a few sentences later when she want to identify the genre.

The teacher’s struggle to include/link the text genre into her discussion of text type, indicates how unfamiliar teachers were not only with the concepts of text type and genre, but especially with incorporating these concepts into their reading lessons. It seemed teachers’ idea of introducing a text was to read the title out loud and proceed with reading the text with/to the class.

Because the teacher told the class earlier that the text type is a story (rather than fiction, of which the genre would be a story) the learners are confused and assume that the word starting with an “F”, should be ‘fiction’ (not ‘fable’).
T5: We did that one in Afrikaans as well …
L: Fairy tale
T5: No … not a fairy tale
T5: We did it in Afrikaans … and we did the beginning, and the middle, and the end …
(reference to using a story map from the intervention in another subject) that story about the carrot … that they called the mother and the father …
L: Miss, a fable!
T5: Yes, a fable. Do you remember in Afrikaans, ‘n fabel? (using Afrikaans word) A fable. Right?
T5: Um … we gonna read through the story …

In virtually all the above extracts learners struggle to identify the text type and particularly the text genre without some prompting, even four months into the intervention. This seemed to be caused by a number of things: learners’ not being used to having to identify the text type, teachers – at least initially – not being familiar with identifying text type and therefore not including text type in their comprehension lessons and not adequately linking the identification of text type to the purpose for reading (which had been addressed during the Information Session, albeit briefly). While the research teachers, and particularly Teacher 5, seemed to grasp early on in the intervention that there was more to comprehension instruction than the ‘three-step process’ they had followed till then (handing out a text, announcing the title followed by reading it out loud to/with learners and answering preset questions), they seemed to continue viewing a text and any activities linked to or emanating from a text as separate entities. It took considerable time and practice for the teachers to realise that the intervention strategies were not separate entities but rather interdependent entities that formed an interrelated whole in teaching comprehension. In fact, of all the research teachers it is perhaps only Teacher 5 who seemed to make this connection successfully, and I attributed this ‘successful connection’ to improved lesson preparation and a willingness to engage with the concept of strategy instruction.

It also seemed that teachers regarded their existing knowledge or grasp of new knowledge as adequate before they should have. For example, Teacher 5 asked her learners to identify the text type in all her lessons, and – to her credit - included the use of different text genres in her lessons despite not always being completely clear in her own mind how to link the genre to strategy instruction. In Excerpt 2d above
Teacher 5 clearly thought that her repeated inclusion of text type in her previous lessons (August to November) had been adequate – her utterance of “Ow ...” to me when learners did not immediately respond to the ‘easier’ question of identifying fiction vs. non-fiction, was one of slight puzzlement and surprise; she had not expected to struggle obtaining answers from her learners at that stage in the intervention. Her surprise changed to a slight display of impatience when she continued to struggle eliciting the correct answer from learners (No, no, no. Listen to me. Listen to me.) which was probably made worse by the fact that her lesson was being observed.

While my observations showed that teachers’ existing knowledge of language and text concepts was important to strategy instruction, some questions in this regard remained: what can be considered ‘sufficient basic knowledge’ for strategy instruction, and how can it be measured beforehand? Furthermore, how does multilingualism impact on this ‘basic’ knowledge, particularly where teachers are providing instruction in a second (or third) language?

6.2.3.2 Teacher approach and acceptance of support

There seem to be specific questions about strategy instruction that remain unanswered (see 3.7.3), such as the order in which strategies should be taught, at which stage strategies should be taught and whether teachers should build on skills taught in earlier grades. At the research school reading strategy instruction was a new concept and therefore the new concepts could not be based on skills taught in earlier grades. This meant there was no existing approach to teaching reading strategy instruction, and teachers, in collaboration with the researcher, had to discover their own approaches. To facilitate the implementation of strategy instruction, I had designed the intervention to provide teachers with clear guidelines and sufficient structure and ample researcher support; teachers’ reaction to and utilisation of support proved to be especially crucial in their implementation of strategy instruction. Teachers’ approach to teaching reading strategy concepts in their instruction had a considerable influence on the effect of their instruction, and seemed influenced not only by their existing knowledge (see 6.2.3.1) and the extent of their preparation (see 6.2.2.4), but also the extent to which they used the support provided. Teachers’ approach to teaching the Questioning strategy will be discussed.

Despite learners struggling to indentify the text type on this occasion (Excerpt 2d is from one of Teacher 5’s last observed lessons before the end of the intervention), they obtained a 100% pass rate on identifying text type in the Strategy Transfer Test.
as a specific example\textsuperscript{23} of the difference in teachers’ instructional approaches and use of support.

For the purposes of the intervention, the Questioning strategy required teachers to teach learners to formulate three types of questions. Questions were divided into two categories, namely Text-based Questions and Knowledge-based Questions. Text-based Questions consisted of Right There Questions (answers obvious from the text), and Think & Search Questions (answers in text but in different places and require thinking to link concepts together), while there was only one type of Knowledge-based Questions (for the purpose of the intervention), namely On My Own Questions (where the answers were not in the text but had to be inferred). As an example of two different approaches to ‘breaking down’ the instruction of the Questioning strategy, and specifically the question types, extracts from lessons by Teacher 4 and 5 have been used below. Both teachers had received the same information and sample lessons about Questioning and had (repeatedly) been offered and assured of researcher support.

Teacher 4, in her first Questioning lesson, sought to teach her learners the question category names and their respective question types in a rote fashion; learners wrote the categories and the question types down in their workbooks during the first lesson, whereafter the teacher posed questions and required learners to answer the questions, identify the question type and ask their own questions. In total the class (49 learners) produced eight questions during the lesson. I made the following comments in my observation notes: ‘Progress a bit slow, concept very new’ and ‘[Names of] categories too ‘technical’ for Grade 4’ and ‘[Better] teacher preparation necessary’. After the lesson we discussed the fact that it might be more useful to ask learners to identify question types before asking them to answer the questions and create their own questions.

The following is an excerpt from the next lesson on Questioning by Teacher 4. She started off the lesson by asking the learners to read through the checklist. Once they reached the section about questioning, she turned to me and said:

\textsuperscript{23} Also refer to extracts about Summarisation from Teacher 4 and 5 in 6.2.2
(25/8) T4: Excuse me, you said it is not important that they should know the type of questions, or do they need to know the type of questions? [I answered in the affirmative, since the question types are necessary knowledge for learners (as opposed to question categories) like we discussed after her previous lesson]. The teacher turns back to the class and continues:

T4: Listen here, we did it in the first lesson the type of questions, hey ... the two main types [categories] of questions is ... (in unison with class) text-based questions and knowledge-based questions. Now name me the three types of questions that we get ...

Class, reading from the information on the learner checklist in front of them: Right There questions, Think and Search Questions and On My Own questions.

T4: Now that is normally the types of questions you get when you do a comprehension, OK? When you do a comprehension.

T4: Now see how important this thing [checklist] is to you. Before you start reading, you must ask yourself why are you reading the thing [text]. Now, I ... the last time I ask you why do you read? Right? Some children said that they read for pleasure, other children said that they read for ... to get information out of there, and other children, um, read for ... examination purposes and so on.

(At this point the teacher touches on the issue of fiction and non-fiction – this section was quoted earlier on during the discussion of teachers’ use of text type (see 6.2.3.1), and is, therefore, not repeated here.)

T4: In any case, if you read anything I give you, you ask yourself questions. You ask yourself what ... what do I do ... am I understanding what I’m reading and all that stuff. So this page [checklist] is very important. Right, did everybody get a page like this?

Class: Yes, miss.

Although Teacher 4 asks for assistance she does not seem to have internalised what was discussed after her first Questioning lesson. She continues to teach according to the ‘safety’ of the checklist and continues to expect learners to recite the question types rather than asking them to formulate questions about the text.

Teacher 4 does not seem to have grasped the change required in the traditional role of the teacher as the ‘sole formulator of questions’. Instead of teaching learners to formulate their own questions from a text, she attempts to teach them to use their knowledge of question types to identify the questions she gives them.

Her continued uncertainty about the aspects of questioning causes her to revert to a teacher-led discussion during which she hurries through the questions and does not quite tie up questions with an appropriate description of the question type. Learners are, therefore, largely non-participative and unresponsive.
T4: And you must always look out for your type of questions, OK? If I present you any page to you, and I ask you any question you must think what kind of question is Miss giving me here … is the question’s answers Right There, must I go Think and Search in order to get hold of the answers, or is Miss giving me stuff that I must do On My Own, like these questions that this teacher is giving me, is it based on my existing knowledge, the knowledge that I already have in my mind about something. OK?

Teacher asks learners to refer to the reading text, and proceeds to read it out loud with the class. Once this has been done, she continues her lesson as follows:

T4: Who are the main characters in this text?

Various learners correctly provide the names of the different characters.

T4: Now, uh, where does the giant live?

The class provides the answer (on a high mountain)

T4: How do you know it’s on a high mountain that the giant lives? Because the answer is right there.

To researcher: OK, am I on the right track? (I nodded in response)

T4: Why do you think, why is children, animals and dwarfs, why would they be so afraid of the giant?

A few learners provide possible answers, none of which seem appropriate to the teacher.

T4: Come on, that is, that is … come, why do you think why is people, why is small children … why is they afraid of a big giant?

L: Miss, because they’re scared he’s going to eat him

T4: OK, because they’re scared the giant’s gonna eat them … in fiction, if you dream something like that comes into your mind that you’re afraid. So this is …? Hey? This is questions that’s based on your …

L: Own knowledge

T4: On your own knowledge, your own stuff, yes.

T4: Right, now let me ask you a few other questions.

Teacher continues and ends lesson by asking a series of questions

She shows that she has taken on board the fact that learners should monitor their comprehension while they read, but she does not elaborate on how they should monitor their comprehension.

As above, Teacher 4’s paradigm still is one in which the teacher asks the questions. She instructs learners to identify the question type in the questions they are given – the aim of the Questioning strategy is that learners must ask questions rather than simply answer the teacher’s questions.

Answers question for learners

The teacher displays knowledge/awareness of how On My Own questions should be answered, but is not quite successful in making the link. When she asks why children are afraid of the giant the answer in this instance is in the text and is provided by a learner (‘afraid of being eaten’), but she continues to try and link the answer to what she thinks her learners’ own experiences are (i.e. bad dreams).
The above excerpt shows that Teacher 4 continued to follow the checklist ‘requirements’ to the letter, but in a rather superficial, rote manner and seemingly still without having internalised the concepts. She uses various expressions which seem to ‘distance’ her from the content, for example: Now, I … the last time I ask you why do you read? Right? Some children said that they read for pleasure, other children said that they read for … to get information out of there, and other children um, read for … examination purposes and so on. The use of “some children” and “other children” instead of the more usual direct and personal “some of you” seemed to be either a manifestation of her unease with the concepts (compounded by being observed and recorded) and/or an effort to bring my attention to the fact that she had taught the concepts on another occasion when I had not been present; in other words, she was emphasising her participation in the intervention by ‘describing’ what had happened in a previous lesson. Her repeated use of the words “all that stuff” and “this thing” in reference to strategy concepts and the checklist respectively, however, seemed to emphasise her unease with the concepts. It confirmed my initial impression of her as a teacher who preferred the ‘safety’ of structure and clear-cut instructions. It seemed important to her to participate (or perhaps be seen to participate) in the intervention, and as mentioned earlier, her use of certain terminology indicated that she had indeed spent time studying the additional information about strategy instruction concepts provided during the Information Session, even though she had not quite contextualised them. I continued to offer support and additional sessions which she continued to resist, citing “being busy” as her reason.

In retrospect, perhaps another alternative ‘training method’ would have suited Teacher 4 better, namely step-by-step, ‘text-book type’ descriptions of how to go about strategy instruction (albeit that such an approach was never the intention of the intervention, and that similar steps had to some extent been provided to her already). Perhaps being able to receive additional ‘training’ in this manner would have suited her learning style and personality better. However, even if such instructions were to be provided to a teacher, the shift from the initial ‘sequenced’ structure of acquiring strategy instruction concepts (as described in written instructions) to a more intuitive and interdependent use of strategy instruction (as learnt through practice) is arguably best achieved through experience, support and, to some extent, trial and error.
Teacher 5, while not teaching her learners the category names (which was information intended for teachers instead of learners) also initially expected her learners to grasp and apply the concept of all three question types very quickly. However, she seemed to internalise the concepts quickly and displayed rapid insight into how she should go about simplifying her instruction. On a few occasions she would ask me to check the questions that she had formulated from a text in preparation for her lesson. She realised that not only were learners unfamiliar with having to ask questions instead of answer them, but that they were unable to make the leap from text-based questions to knowledge-based questions without intensive practice. She, therefore, scaffolded her instruction by teaching one question type at a time spread over multiple lessons and sometimes with the repeated use of the same text until learners became familiar with asking questions. The following extract was taken from a lesson that, like the extract for Teacher 4 above, was her second lesson on Questioning.

(19/8) T5: Right, now last week we said, I asked you why, why do we ask questions at the end or after a reading text? What did we say?
L: To see if you understand
T5: To see if you understood what you have read. Right, now, we also discussed … Yes, Lee?
L: To see if we listened, miss
T5: Yes, to see if you paid attention. Right.
T5: Then we discussed three types of questions. Do you remember those three types of questions, what they are? The names of those three types of questions? Kelly?
L: Right There
T5: Good! The Right There
T5: Right. Your Right There question. And where, what can you tell me about the Right There question. Where do you find those answers?
L: At the beginning
T5: At the beginning? Just at the beginning? Um, John?
L: In the passage, miss.
T5: In the passage! You will find the answers in the passage. When you read through the passage, you will find the answers right there.
You don’t have to look for the answers. It’s right there. It’s in the passage. Right, you don’t have to think about the question [answer].

T5: And who can remember about the second type of question? What the, what the name of that question is.

(Seeing/sensing that learners are uncertain, she adds:)

T5: It’s OK if you don’t know, but you can try if you want to. No response from learners.

T5: The second one is your Think and …

L: Learn

T5: Search. Your Think and Search question. OK? And that is the one where you are required to think about the ideas of information in the passage that relates to each other. And you will need to go back, look at the back, go back and think and find the information that the question refers to and then think about how the information or ideas fit together.

T5: The last, the third one. Who can remember what that one is? Um … Harriet?

L: On My Own

T5: Your On Your Own. Who can tell me what that is? On My Own. What that type of question means?

L: You won’t find it [the answer] in the passage

T5: That’s right, you won’t find it [the answer] in the passage. So you have to use your own …

L: information

T5: What you think, what you think, your own background. What you know about the topic or about the passage, OK? Usually about the topic.

T5: So you won’t usually find the answer in the passage. This is your own idea of what you can formulate about the question.

What is noticeable from the excerpt above is that Teacher 5 links questioning to a purpose, in other words, she does not simply teach learners question types (and eventually, how to formulate their own questions), but teaches them the reason for
being able to formulate questions. After the lesson from which the above excerpt was taken, Teacher 5 continued her instruction of Questioning by repeating her instruction in sequential lessons until learners were comfortable with the concepts. During the lesson related to the above extract she did not yet expect learners to create their own questions, merely to know and identify the question types. To illustrate her continued revision and repeated application of the same concepts in a gradual manner, an excerpt from the lesson that followed on the one above (her third lesson about questioning) is provided below.

(26/8) T5: Right, so last week and the week before that we discussed some questions, questioning. Can you still remember the three types of questions?
(Various learners put up their hands and try to convince the teacher to let them answer).
T5: Linda?
L: Right there
T5: The Right There question. And where would one find the Right There question? Alan?
L: In the text, miss.
T5: In the text, right, you’ll find it in the passage.
(Most learners have their hands up, making comments such as “Can I say, miss?” in an effort to convince the teacher to give them a turn)
T5: Richard, can you tell us another type of question that you get?
L: On My Own
T5: A On Your Own question. And what can you tell me, where would you find the On My Own question? Robin?
L: I don’t know
T5: No, but it doesn’t mean if you don’t know I can’t ask you! I’m asking you. Hmmm?
(Teacher waits for an answer. Learner mumbles something)
T5: I can’t hear?
L: Your own stuff
T5: Your own stuff … OK …. (Other learners are out of their seats with their hands up)
T5: Aidan?
L: Think and Search, miss
T5: We’re still with that one, the On My Own. I want to know, the On My Own question … Sally?
L: Miss, it’s not fully in the passage, miss, you must take the pieces and put it together and then you get the answer.

(Disregarding the answer – probably because it is not related to Think & Search – the teacher instead says:)

T5: Do you think that is the On My Own question? Britney, you say no?
L: It’s not in the passage, miss, you get it by (indistinct words) other stuff

T5: That is normally the answer that is not in the passage. You must use your background knowledge, OK? You must use your background knowledge and the answer will not be in the passage. Nowhere in the passage will you find that answer.

T5: The third type of question? Debbie?
L: Think and Search

T5: Your Think and Search. Now, what did we say, where, how do you find the Think and Search? The answer to those type of questions?

T5: Brenda, can you just repeat that?

L: It’s in the passage, miss, you must just put the pieces all together.

T5: All together, right, you need to go and look, see the relation to the question and you just put it all together, OK? You’ll find the answer. Right.

T5: So last week I gave you questions and you had to tell me if it’s a Right There question, a Think and Search or On My Own question. Now, today you must formulate questions for me. OK?

T5: I divided the text into three paragraphs, you’ll see it’s numbered one, two and three and for each paragraph you must formulate two questions for each type, each type of … um … question

T5 I’m gonna do the first paragraph. Then you do the second and the third. OK?

The teacher’s numbering of the paragraphs indicates her understanding of the need to scaffold instruction in moving from identifying to creating questions. It also demonstrates an increased level of lesson preparation. She demonstrates an increased awareness of the need for scaffolding and modelling in formulating questions for the first paragraph.

What was evident in this lesson was the increased participation by and enthusiasm from learners. The fact that the teacher disregarded (or perhaps did not recognise) a learner’s insightful description of a Think & Search question because it was not the answer to the question she was discussing, seemed to indicate that she herself was not yet completely confident of her knowledge of the concepts, or that she was not comfortable with an ‘out-of-sequence’ answer (i.e. the learner’s answer was not the
Teacher 5 also clearly prepared in considerable detail for her lessons: she numbered the paragraphs of the text to assist learners in their use of the text, came prepared with her own list of questions per paragraph - she seemed to do this so that, when learners did not respond quickly, she would have an example already at hand – in this way her preparation minimised her uncertainty and nervousness of being observed. Importantly, she modelled the formulation of questions before asking her learners to do the same (I’m gonna do the first paragraph. Then you do the second and the third. OK?). The main difference between Teacher 5 and the other research teachers seemed to be that although she, like the other teachers, regarded acceptance of support as admitting there was something she ‘did not know’, she grew to realise that the intervention was not about being judged, but about contributing (collaborating) to implementing a new methodology. This seems to confirm findings by existing research that innovations which provide include adequate technical support and provide an opportunity for collaborative learning (Torff & Byrnes, 2011; Richardson, 1998; Gersten et al., 1997) seem to be taken up more effectively by teachers.

In terms of teaching Summarisation Teacher 5 followed the same approach: after attempting the summary of an entire text (much like Teacher 4 did), she switched to paragraphs and short poems instead, and again made use of the sample lessons provided during the Information session. The benefit of Teacher 5’s instructional approach was demonstrated by the results of both the Exploratory Test (see 5.3.1) and the Strategy Transfer Test (see 5.3.2).

6.2.3.3 Teacher change in Implementation Phase 2

In order for teachers to ‘fit the pieces into a cohesive whole’ in strategy instruction, it seemed the ideal way to teach the strategies contained in the intervention was to adopt a more ‘skill-like’ approach to strategies: teach one strategy or strategy concept at a time, repeat instruction of a strategy/concept until it became automatic (for both teachers and learners) before moving on to the next concept, using the same text for more than one lesson so that learners can apply unfamiliar
strategy/concepts to a familiar text, ensuring that learners understand a new strategy in its entirety before expecting them to apply it independently. In essence, effective strategy instruction meant repetition and practice. A ‘skill-like approach’ to strategy instruction also meant that teachers had to break down the instruction of a given strategy into smaller sections instead of teach an entire strategy on its own.

Teacher 5 represented the changes required for strategy instruction especially well: once she had done a few strategy instruction lessons with the help of the sample lessons provided during the Information session and by depending heavily on the checklist, she became less dependent on the sample lessons and started selecting her own texts and incorporating the intervention strategies with more fluency into her lessons. While she continued to consult the checklist during lessons, she became more flexible in her application of reading strategies by experimenting with different sequences in their usage during lessons. In conjunction with this, her use of certain strategies became more automatic and a more permanent part of her lesson. She also became more relaxed about controlling learner responses. What was especially noticeable in observations of Teacher 5’s lessons, was the change in her lesson preparation. Where previously preparation had seemed to consist of selecting a text for which questions already existed and perhaps identifying difficult words for discussion, Teacher 5 started creating her own handouts and used texts from the book of age-appropriate reading texts I had given all teachers.

One might argue that increased formal teacher training could have improved teachers’ performance, and I must admit this was something I considered during the intervention. However, apart from time constraints (it was all but impossible to find time with teachers outside school hours – ‘training time’ with teachers was typically obtained by letting learners off early so that teachers did not have to stay after school, something the principal did not wish to do too often), teachers seemed too used to viewing training (external input) as a solution to improving performance; the time I spent in teachers’ classes showed that what was necessary for improved strategy instruction was not so much more training than improved lesson preparation (so-called ‘internal’ input) and use of the support that I offered to provide. Where teachers took the time to interact with texts in more detail than merely creating some questions, their strategy instruction improved accordingly.

It must be highlighted at this point that although Implementation Phase 2 showed that strategy instruction was possible with commitment and sufficient practice, its
effectiveness seemed to be affected by a few issues, such as class size, learner literacy levels combined with teacher knowledge, the quality of literature available combined with sufficient exposure to reading and the frequency of strategy instruction. Class size seemed to have a compounding effect on teachers’ natural need for control – as teachers became more comfortable with strategies which required discussion (such as Activating Prior Knowledge) they seemed to start to relinquish their need to control learner responses. However, ‘uncontrolled’ contributions by large classes quickly turned into meaningless noise due to the sheer number of learners, which in turn prompted teachers to ‘re-engage’ their control. Learner literacy levels also seemed to prohibit any ‘depth’ and duration in discussions, since learners were not used to interacting with texts for any length of time or in much detail. This seemed to be compounded by the general lack of reading opportunities (see 6.1.8) and quality, age-appropriate literature available in the research classes. Lastly, it was clear that the rate at which learners (and teachers) took on strategies, was directly linked to the frequency of their use of strategies. The frequency of the use of strategies links to the time available for applying them during an innovation – as shown by research, innovations that provide sufficient time for classroom implementation are taken up more effectively by teachers (Torff & Byrnes, 2011; Pressley & Beard El-Dinary, 1997; Richardson, 1998; Richardson et al., 1991; Huberman & Miles, 1984).

Overall, the Implementation Phase 2 (Experimentation Phase) seemed to be the phase during which teachers gained deeper insight into strategy instruction as a process through its repeated instruction. This seemed to bring a few realisations: that strategy instruction was a long-term process, that although an initial ‘skill-like’ approach was required to teach/learn the basics of each strategy, the strategies needed to “unite to become a single comprehension process” (Block & Duffy, 2008:31), and that this required additional knowledge, preparation and support. While acquiring additional knowledge and doing additional preparation were effectively aspects that teachers were used to, admitting to needing support, even if only initially, seemed more difficult. Similarly, not being able to leave the ‘structure’ required for teaching/learning the basic strategy concepts (i.e. viewing the checklist as a rigid sequence), also seemed to inhibit progress in strategy instruction. However, where teachers were able to abandon their need for structure and accept and use support where necessary, their instruction progressed positively.
6.2.4 Independence Phase

* Recognition of links between intervention strategies and curriculum
* Expansion of strategy instruction to other subjects
* Decreased need for support & encouragement
* Expression of interest in teaching more strategies
* Use of reading strategy discourse
* Lesson preparation shortens as experience and knowledge increases
* Autonomy (unassisted performance)

The Independence Phase sometimes overlapped with the Experimentation Phase, because teachers seemed to reach ‘independence’ in certain strategies at different times. For example, Teacher 5 started implementing strategy instruction (particularly summarisation) in her Afrikaans language lessons early on during the intervention – something which signalled a form of independent use of the strategy. However, she continued to ‘experiment’ with new concepts and knowledge during her observed English language lessons, and continued to ask for support.

Teacher 5 provided by far the most opportunities for observations of her classes, and was the only research teacher who could be described as reaching some form of independent use of strategy instruction. Most of the observations regarding the Independence Phase, are therefore, based on data gathered in Teacher 5’s class. However, although it can be said that Teacher 5 showed some independence in her instruction of reading strategies, this independence could not be considered final. In other words, although she seemed to have become convinced of the value of strategy instruction and confident of her ability to teach strategies, she had been teaching reading strategies for a relatively short time, which meant there was room for improvement, particularly in terms of teachers’ knowledge in general, and particularly in terms of the increased application of strategy instruction.

Overall, as Teacher 5 continued with strategy instruction, she was repeatedly surprised by her learners’ responses to questions (“Oh, but you children are good, you remember! Good!”), which seemed to increase her confidence and encourage her to attempt different instructional approaches. She began to create her own lesson structures, stopped relying so heavily on the checklist or the material provided during the Information session, relied less on encouragement and support from the researcher and started using strategies in a non-linear manner (i.e. not always in the ‘sequence’ of the checklist). This non-linear application of strategies seemed to indicate that she had grown aware of the fact that the intervention strategies were intended to be used interdependently.
In conjunction with the confident application of strategies, Teacher 5 had started allowing more spontaneous learner responses; i.e. both the teacher and learners slowly began using a ‘strategy instruction discourse’. The research school as a whole, and by association teachers and their classes, displays a controlling, authoritative culture represented by a specific “social language” (Gee, 1996, 2005). This social language means that learner-learner discourse differs from learner-teacher discourse; the former is characterised by being informal, the use of slang and code switching, whereas the latter is characterised by its formality when interaction flows from learner to teacher, the use of a single language (no code switching) and an instructional nature when interaction flows from teacher to learner. In other words, the social ‘power’ in the teacher-learner relationship rests on the side of the teacher.

However, reading strategy instruction (and, it could be argued, teaching comprehension in general), requires a specific type of discourse. Kelly and Clausen-Grace (2007:7) refer to the development of a “common language” when using strategy instruction. In strategy instruction discourse learners are not restricted to providing only fixed answers but are instead encouraged to think about and discuss texts and their individual interpretations of texts in depth. The Longman (2009) definition of the word discuss includes “to talk or write about something in detail and consider different ideas or opinions about it”. However, the research teachers commonly seemed to interpret and apply discussion as a controlled, teacher-led scenario where the answer to questions is already and always known by the teacher. Research has shown that “traditional teacher-led discussion diminishes students’ cognitive responses” and “interrupts student discourse” which in turn leads to “decreased motivation, cognitive disengagement and passivity” (Almasi & Garas-York, 2009:470).

The type of discourse necessary for strategy instruction implies that instead of a single interpretation of text, a true discussion accepts that “multiple and conflicting interpretations of text can co-exist” (Fish, 1982). While such discourse does not imply that all discipline is abandoned (which, together with their fear of ‘not knowing the answer’ seemed to be teachers’ main concern), it does require teachers to be able to accept answers that they might not have considered themselves, or meanings that they might not relate to (especially in multilingual and multicultural classes). Strategy instruction discourse allows for critical and evaluative thinking from all participants and means teachers must be able to let go of the assumption that only they have the answer, and that each text has a single, correct interpretation (which pre-set
questions imply). Teacher 5 seemed to grasp this fact when she chose to let learners provide a title for a text instead of providing a list of possible titles for learners to choose from – she is quoted in 6.1.8 as saying: *You see! It's easy, I'm not going to give them a choice, it's too easy!*

In essence, to enable 'reading strategy discourse', not only is a basic set of textual and language knowledge and skills required from teachers (see 6.1.9), but a shift in the teacher-learner power relationship is required, at least in terms of adjusting the nature of teacher-learner discourse. In other words, reading strategy instruction requires classroom discourse to shift from instruction to discussion. From my observations in the research classes, and taking previous comments (concerns) about class size into consideration, it seems that some shift in classroom discourse is indeed possible, albeit that it requires support, and courage and a willingness to change from teachers. Again, Teacher 5 showed a desire to learn and a willingness to accept new concepts; her classes were increasingly marked by instances where she relinquished control as the 'sole owner of meaning' as illustrated by the following quote from her class (full extract dated 13/10 in 6.2.2) where learners were asked to provide a title for a text:

T5: That is fine if more of you have the same answer. Sam, what is your answer. It can be different, there can be lots of different answers. Deep in the woods. Right, that is how he summarised it, that is the title that he gave to that story. What else?
L: Scary in the woods
T5: Scary in the woods, right. Melissa?
L: Lost and found
T5: Lost and found … because … why does she say “lost and found”?
T5: Who else has another title for us? Yes, Keila?
L: Dark in the woods.
T5: Dark in the woods. Yes, that is her title.

A point that signalled a considerable move towards independence (and the possibility of the sustained application of the intervention strategies) in Teacher 5 was when she referred to recognising the links between the intervention and requirements in
the RNCS. She referred to recognising the links on various occasions. As early as the
fourth observation of her class she admitted to realising that reading strategy
instruction related to the learning outcomes and assessment standards for reading in
Grade 5. However, since I had provided the research teachers with copies of the
assessment standards for the Reading and Viewing Learning Outcome for their
respective grades around that time, it is possible that this early comment prompted
her understanding of the links between the research intervention and curriculum.
However, during a later observation of her class she made the comment about the
intervention strategies as follows: They have helped me, they’ve given me an
advantage over other teachers in lesson planning. I’ve told them that. A further
admission to recognising the benefits of participating in the intervention was during
an unstructured discussion following a lesson observation towards the latter part of
the intervention. The discussion was recorded as follows:24

(11/10) R: Are you [feeling] more comfortable with this type of thing [intervention concepts]? Or
do you still stress a bit?
T5: I do still stress a little bit (laughing), the nerves are still there a little, but when one does it
again … then it won’t be … it won’t be [so difficult/much work] … and I tell myself this every
week. But unfortunately it’s just time … the teaching system is totally … [doesn’t work]
R: But a lot of this is in your, um, your curriculum …
T5: Yes, that’s why I say … Mister [principal] asked me last week
[indistinct sentence] and he said Oh, Miss, it’s just too much
admin, hey? … and you also have [the research intervention] …
Yes, but then he asked me ‘By the way, how is it going?’ and I said
to him I’m benefitting greatly from it and I said to him it forms part
of our assessment standards … ooh, that man was very impressed!
R: I’m glad to hear that
T5: Yes!

24 Refer Addendum M Text 3 for original Afrikaans
R: It teaches one to think differently …
T5: Yes! I learnt … I taught myself a lot and I found a lot of benefit in it, it has really helped me. I benefit greatly from it. It helps me with all those blue books [WCED Work Schedules], it helps me with many things that I hadn’t done previously … definitely.

A while later she comments, in reference to the learners’ experience of the intervention: You can see they are enjoying it. But we do so neglect them, you know … we really neglect the children …

From Teacher 5’s final comments about her own learning and about ‘neglecting’ the learners, it seems clear that she realised the value – to both herself and her learners - of the additional effort she put into her teaching through participating in the intervention. It should also be added that the school principal recognised the value of strategy instruction from the outset and expressed a desire to have all his Intermediate and Senior Phase staff trained on the concepts of reading strategy instruction. Indeed, by the start of 2010 the principal had submitted the reading strategies from the research intervention to the Western Cape Education Department (WCED) as part of the research school’s strategy for improving literacy²⁵, again showing that a principal’s support is crucial for teacher development.

A final example of the benefit of participating in the intervention was obtained in the year following the intervention. During the latter half of 2010 the WCED launched Shared Reading and Writing and Guided Reading to schools²⁶. Shared Reading shares certain concepts with reading strategy instruction – concepts which were covered by strategies used in the research intervention. The shared concepts include dividing reading into before, during and after reading stages, activating prior knowledge, questioning, clarifying and summarising). During a visit to the research school some nine months after the completion of the research intervention, Teacher 5 made the following comment in reference to her success with Shared Reading and Writing and Guided Reading, and with specific reference to an unannounced visit by a curriculum adviser to observe her Shared Reading class.

²⁵ In reaction to the poor results of the standardised literacy tests conducted by the Department of Education at the end of 2009, the Western Cape Education Department (WCED) required each school to submit a strategy for improving literacy in their school.
²⁶ Information sessions for Shared Reading and Writing and Guided Reading (as part of the WCED’s Literacy & Numeracy Strategy) were held with teachers during the first week of the June-July 2010 holiday. Teachers were expected to implement these methodologies upon their return to school in the third term.
(17/09 of year after intervention)
T5: I have no problems with it [Shared Reading], I find it easy because of last year’s work [research intervention]. Not like the others [fellow teachers] … Yesterday’s lesson [curriculum adviser’s unannounced visit] went well and I wasn’t even prepared.
R: Do the others [other teachers] struggle [with teaching the new concepts]?
T5: Yes! They struggle a lot.

The extract above seems to indicate that, aside from the benefits mentioned in earlier examples, the teacher’s participation in this study’s reading strategy intervention also provided her with knowledge of and context for other areas of reading instruction.

6.2.5 ‘What’ and ‘How’ and Teacher Change

In this chapter the analysis and interpretation of the qualitative data gathered for this research discussed the factors that – as far as the data for this study are concerned – could impact on strategy instruction (see 6.1), and the phases that teachers seemed to go through in their take on of strategy instruction. If both 6.1 and 6.2 (also see Figure 7) are taken into account in their entirety, it is fair to say that teachers’ take on of reading strategy instruction during the intervention was most strongly characterised and affected by the following:

- Teachers’ existing knowledge of language and texts – the better this knowledge was, or the faster a teacher developed it, the quicker their adjustment to and progress in strategy instruction seemed to be
- Level of lesson preparation – the deeper a teacher’s ‘interaction’ with a text was before a lesson, the faster the teacher’s internalisation of strategy concepts seemed to be
- Willingness to change and accept (and ask for) support – the amount of support used seemed to have a direct influence on the quality and quantity of strategy instruction as well as the changes that occurred in teachers and their instructional methods
- Class size – the bigger the class, the more difficult it seemed to be to manage activities related to strategy instruction, such as discussions to activate learners’ existing knowledge, or allowing learners a fair opportunity to participate
- Learner literacy levels – where learner literacy levels were low, strategy instruction needed to be simplified considerably (smaller steps, more practice) and the ‘depth’ of text interaction seemed lower
- Frequency of strategy instruction – more was better, both for teachers and learners.

However, as alluded to in 6.1, although specific What factors were identified as issues that affected how teachers took on RSI, these factors ‘occurred and re-occurred’ in the qualitative data and could not always be separated cleanly from the How phases. In other words, although the What factors were present before the start of the intervention and impacted how teachers changed during the intervention, the factors themselves were susceptible to change. In other words, the more teachers changed as they took on RSI (Teacher 4 and particularly Teacher 5), the more it seemed the effect of specific What factors changed. Some factors (school attendance, class size, multilingual classes, LoLT and admin) were deemed to have a medium to high impact on RSI before the start of the intervention and showed little to no change because these issues fell outside teachers’ sphere of direct influence (see 6.1). This includes the Administrative Burden because although it was something which could arguably be controlled (changed) by teachers, no change was observed because teachers were compelled by school management to adhere to unrealistic deadlines at the cost of teaching.

Reading resources (6.1.8) and Learner literacy levels (6.1.6) were deemed to have a considerable impact on RSI. In terms of reading resources learners had not had regular exposure to age-appropriate reading material or a variety of genres before the intervention – although regular access to reading resources did not improve during or because of the intervention (other than the books purchased before the intervention), teachers (most notably Teacher 5) made a concerted effort to increase the variety of text genres in her lessons. In this way it could be said that through the exposure to reading strategies and increased enthusiasm and participation, learners did show some change in their overall literacy levels. The factors that were deemed to have a large impact on RSI but were at the same time affected positively by teacher change, were Teacher Expectations (see 6.1.7), Teacher Knowledge (see 6.1.9) and Existing Reading Instruction (see 6.1.8) – in each of these areas clear change was observed in teachers who persisted with strategy instruction (most notably Teacher 5).
Certain issues related to the *What* factors and *How* phases will be picked up again in the final chapter when recommendations for a framework for strategy instruction will be made. For now, having discussed how teachers took on reading strategy instruction, the discussion will turn to looking at how learners reacted to strategy instruction.

### 6.3 Learners’ uptake of strategy instruction

For the purposes of this research considerable focus has been placed on the role of the teacher as the provider of strategy instruction, since research (see 3.7) shows that learners benefit from any kind of strategy instruction. *As a result, more weight has been given in this chapter to the discussion of factors that impacted teachers in their uptake of strategy instruction.*

The factors that influence learners in taking on reading strategy instruction could, therefore, be seen as further factors that teachers (and administrators) should take into account when implementing reading strategies, since the factors that influence children are more likely to differ from school to school and even class to class. As mentioned in 6.1, it is difficult to completely separate factors that influence teachers from the factors that influence learners. Therefore, some factors that influence children have already been touched on in 6.1, namely school attendance (see 6.1.1), class size (see 6.1.5), language of learning and teaching (see 6.1.2) and learner literacy levels (see 6.1.6), and been described in 6.2 (observed teacher phases of implementation). To prevent unnecessary repetition, the discussion that follows will offer a short description of how learners responded to reading strategy instruction, since, apart from learners’ individual abilities, their participation in strategy instruction was virtually completely dependent on the quality of instruction received.

#### 6.3.1 Learners and reading strategies

The concept of reading strategy instruction was new to all learners who participated in the intervention. They found reading strategy concepts strange at first, since they were used to the existing teacher-led format of comprehension lessons: a text being handed out, reading the text with little or no prior discussion, limited clarification of concepts and vocabulary and answering pre-set questions about the text. However, once learners became used to the new concept and the regular addition of strategies
to comprehension lessons, they adapted quickly – in some instances certainly quicker than their teachers had expected.

Learners, much like the research teachers, seemed to move through distinct phases in taking on strategy knowledge. The phases and associated characteristics that seemed to manifest in the learners depended almost completely on the type of instruction provided by the teachers. In other words, the further the teachers progressed in their strategy instruction phases (see 6.2.1 – 6.2.4), the further and faster learners seemed to progress in their use of reading strategies.

The phases identified in learners, particularly the learners in the experimental group, are best described as Adjustment, Repetition and Application, and described in Figure 9 below.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Characterised by</th>
<th>Coinciding teacher phase</th>
</tr>
</thead>
</table>
| Adjustment | • Unfamiliarity with new concepts  
• Slow response/no response  
• Uncertainty about teacher’s expectations  
• Need for encouragement to participate  
• Need for assurance about ‘right’ or ‘wrong’ answers | Implementation Phase 1    |
| Repetition | • Surprise at success of own responses  
• Growing enjoyment of and enthusiasm for strategy use  
• Need for repetition (practice)  
• Increased fluency in use of concepts and terminology  
• Increased interaction with texts  
• Strategy knowledge still at conceptual level  
• Use of strategies still largely teacher-led | Implementation Phase 2 (Experimentation) |
| Application| • Some higher-level text processing  
• Independent application of strategy/-ies | Independence              |

Figure 9: Learners’ reading strategy instruction phases

As with the teacher phases, the learner phases represent broad categories that show development over time; the characteristics in the right-hand column of each phase again function as ‘sub-categories’ or ‘themes’ illustrated by references to transcripts
and classroom observations. Although the characteristics have not been used as
subheadings within the discussion of each phase, the discussions are generally
structured according to the sequence of the listed characteristics.

As is evident from the right-hand column of Figure 9, there are only three coinciding
teacher phases (as discussed in 6.2.1 – 6.2.4), nor do the teacher phases coincide
exactly with the learner phases. The reason for three instead of four teacher phases
is that the teachers’ first phase, the Expectation Phase, preceded the implementation
of the intervention in their classes; in other words, strategy instruction did not
commence till the second teacher phase, namely Implementation. In addition to this,
the teacher phases do not coincide exactly with the learner phases, since from class
observations teachers developed at varying speeds in terms of different strategies;
therefore although the teachers’ Implementation phase coincided with learners’
Adjustment phase because both were the starting point of the research intervention,
teachers’ development between the Implementation Phases and Independence
Phase was not always a linear development (see 6.2.4 for reference to ‘overlapping’
phases) as indicated by the dotted dividing line between the three phases in Figure 9.
Where teachers moved rapidly from Implementation Phase 1 to Implementation
Phase 2 (Experimentation) in their instruction of a particular strategy or combination
of strategies, learners’ coinciding movement from Adjustment to Repetition seemed
to match their teacher’s development. In 6.2.4 it was noted that of the research
teachers only Teacher 5 moved intermittently into the Independence phase.
Similarly, few learners in her class were observed participating actively in the
Application phase – where this was observed, learners did not display the outright
independent or subconscious use of strategies, but rather the successful, conscious
application of what they had learnt, such as formulating different types of questions
and summarising text – which was the main objective of the study, but certainly not
the long-term goal of strategy instruction.

The intervention strategies and the reason for their selection were described in detail
in 3.7.4. To recap, the strategies were Activating Prior Knowledge, Monitoring,
Clarifying, Questioning and Summarisation, with the addition of two aspects related
to these strategies, namely Identifying the Purpose for reading, and Identifying the
Text Type. A short discussion of how learners reacted to the instruction of these
strategies follows below.
6.3.2 Purpose for reading and text type

As discussed in 3.7.4 the aim of identifying the purpose for reading a particular text is to demonstrate that “as the purpose for reading changes, the reader’s focus changes as well” (Moreillon, 2007:98). In other words, the inclusion of identifying the purpose for reading was to teach learners that, for example, reading a text for relaxation requires a different level of concentration to reading a text in class. Knowing the purpose for reading was directly linked to identifying the text type, since different text types are usually read for different purposes. For example, non-fiction texts represent factual content, and are typically used for academic purposes where the reason for reading is usually to acquire new facts, generally for examination purposes.

In the research intervention identifying the text type included two steps: identifying the text as fiction or non-fiction and, as the intervention progressed, identifying the fiction genre (since all texts used during the intervention were fictional texts). Learners did not seem used to identifying the text type or genre, and as demonstrated in 6.2.2 and 6.2.3, it took considerable repetition and practice to grasp the concept. As also mentioned in 6.2.3 the Experimental Group, despite seeming to struggle with the concept during instruction, scored 100% for the question about text type in the Strategy Transfer Test (STT). The Control Group, by contrast, emphasised how unfamiliar Grade 5 learners at the research school generally were with text type - while administering the STT to them various learners in the Control Group asked me what the words ‘fiction’ and ‘non-fiction’ meant.

6.3.3 Activating Prior Knowledge

Activating Prior Knowledge was not a strategy that required learners to learn any particular new skill (such as learning question types); rather, it required them to think and participate in a discussion about the text before the text was read. In other words, it was a process which, at least for the purposes of the intervention, included simultaneous participation by both teachers and learners for the duration of the strategy’s use (as opposed to, for example, Questioning, where learners formulate their own questions). For effective description of the Activating Prior Knowledge strategy, this section will, therefore, include lesson excerpts which include the role of the teacher.
The purpose of activating prior knowledge is to allow learners to activate and apply their own knowledge ‘schema’ (see 2.3.2) before reading a text. Gee (2004:39) argues that “humans understand content … much better when … they can relate that content to possible activities, decisions, talk and dialogue”. The concept of having an in-depth discussion related to a text topic or content was new to both teachers and learners at the research school. While some teachers would ensure learners understood the topic before reading the text (for example by asking “Do all of you know what [title] means?”), none seemed familiar with a detailed discussion of issues related to a text beforehand. Teachers’ concept of a ‘text discussion’ seemed to extend to an explanation of unfamiliar words after reading a text.

The following excerpt is an example of Teacher 5 using the Activating Prior Knowledge strategy with her Grade 5 class. The reading text is called ‘The Wooden Bowl’ and is a parable about respect that tells of an old woman who lives with her daughter and son-in-law and looks after her granddaughter during the day. One evening she accidently breaks a supper bowl; the daughter, upset about the loss of a bowl that she deems to be irreplaceable, gives her mother a wooden bowl to use. When the old woman dies, the granddaughter saves the wooden bowl, and when asked why by her parents, explains that she is saving it for when they (her parents) grow old.

(26/08)
T: Look at the topic … the name of the … of the [interrupts herself to discipline a child]. Right. Look at the topic, the subject, the subject of the story. What can you tell me about that subject, the name of the story? Anything you can tell me about ‘The Wooden Bowl’. What can you tell me about it?
T: Brenda?
L: It was a bowl, miss.
T: But what can you tell me about the bowl? Anything you know about a bowl.
[Learner attempts to say something without putting his hand up]
T: Why you shouting out?
T: Melissa?
L: You can eat out of a bowl, miss.
T: You can eat out of a bowl, nice. You can eat out of a bowl. What else can you tell me about a bowl?
T: Lionel?
L: Nice decorations on it, miss.
T: OK, you find nice decorations on a bowl. Patterns on a bowl. Xander?
L: Different kinds of bowls
T: You get different kinds of bowls. What about shape?
L: You get round bowls.
T: You get round bowls. A bowl can be round. Chris?
L: You can wash bowls.
T: Yes, you can wash bowls. Come, what else can you tell me about a bowl? What is it made of?
L: Clay, miss
T: You get bowls made out of clay
L: Plastic
T: You get plastic bowls. Daniel?
L: Ceramic
T: You get ceramic
L: Glass bowls
T: Now what is this specific bowl made of?
T: Charlene?
L: Wood, miss.
T: It’s made out of wood. Right. Let’s read through the story. [Starts to read the text out loud to the class].

Although this was a fair attempt by Teacher 5 at activating learners existing knowledge, the concept was still unfamiliar to both teacher and learners. While Teacher 5 explores the concepts about bowls (types, shape, construction) quite well, she does not consider touching on anything but the title itself. In other words, even though she has started to grasp the concept of activating learners’ existing knowledge related to the text title, she does not yet consider looking at aspects within the text itself (such as respect for elders, family relationships).

The teacher’s unfamiliarity with the concept and unease with the process is demonstrated by the control she exerts over learners’ responses, for example saying "Why you shouting out?" to a learner when the learner was one of only a few with a response to her question. Although it is not evident from the transcript, the teacher often had to wait for answers; to her credit, she did not rush on or provide answers for learners. Learners’ answers in the extract above are short and simple, and seem to be an indication of some wariness and uncertainty about their answers. What was
further evident from other observations which included the use of Activating Prior Knowledge, was that learners initially seemed surprised and even slightly caught off guard by the teacher’s use of the strategy – learners were not accustomed to answering questions or participating in a discussion before reading a text. From my informal observations of student teachers and teachers at other schools as recently as 2010, it is not surprising that learners at the research school seemed out of sorts: it seems the standard way to start a comprehension (or any language) lesson continues to be the teacher’s announcement of the text title and or subject (“Today we are going to read about …”), followed by the reading of the text.

6.3.4 Questioning

Kelley & Clausen-Grace (2007:119) make the comment that learners generally think “the sole purpose of reading is to answer teacher and text questions”, and that while they are “especially adept at ‘right there’ or literal questions … that require factual recall of information in the text” and are “often dumbfounded when asked to write their own response or interpretation” because they think “there is a trick and there must be a definite right answer”. These observations seemed very representative of the learners who participated in the research intervention. Questions around comprehension texts were usually restricted to the questions provided with the reading text by the source from which the text was taken. Teachers seemed to find it unsettling that reading strategy instruction required them to formulate questions other than ‘right there’ questions as part of their lesson preparation, much less expect learners to formulate questions. Learners registered surprise at being asked to formulate questions instead of answer them. For example, in an observation of the Questioning strategy in Grade 5, when instructed for the first time to ask questions of the text instead of answer questions posed by the teacher, an astonished learner asked: “Must we ask Miss questions?” (a question that also indicates that learners had not yet grasped that they were being asked to question the text – instead they confused questioning the text with interacting with the teacher).

It should be pointed out that Questioning is often taught as a strategy to be used before reading a text, in other words, as a form of prediction (see 3.7.4). Asking and answering questions before, during and after reading helps readers to “establish, develop and maintain an internal conversation while engaging with text” (Moreillon, 2007:59). However, for the purposes of this intervention a simplified approach was taken to introducing Questioning to learners and teachers: learners were taught to
formulate questions after reading only since it is typically easier to formulate questions about a text that has already been read. The reason for this was twofold: to allow teachers to get used to learners formulating questions rather than asking them questions, and to allow teachers to teach learners how to ask well-formulated questions before asking them to apply the technique as part of their before-reading activities.

Overall learners quickly became familiar with the three question types taught during the intervention; however, their successful use of the question types depended largely on their teacher’s method of instruction. While both Grade 4 and Grade 5 learners were able to identify different question types after one or two lessons, they were not equally successful in formulating their own questions without sufficient scaffolded practice with their teacher. As discussed in 6.2.3, Teacher 5 introduced her learners to the concepts of questioning in a staggered fashion: first she taught them the question types, whereafter she asked them to sort questions into their correct question type. Only then did she expect learners to formulate their own questions. Although learners produced a fair range of questions during my observations of Teacher 5’s classes and participated with enthusiasm, they found it easiest to formulate Right There questions (where the answer is immediately obvious in the text) since this did not require much interaction with the text and was the type of question they were used to receiving from their teachers. During the observation of Teacher 5’s second Questioning lesson, I made the following note: Some learners understand or can identify the question type before (instead of) they can answer the question. This seemed to underline how easily learners learned the ‘technical’ side of a strategy, in other words, identifying a question as a particular type, as opposed to creating a question.

However, while they progressed slower in learning to formulate Think and Search questions (where the answer is in the text but information must be found in different places and put together), and often had trouble formulating On My Own questions (where the answer was not in the text and the answer required applying their own knowledge or making inferences), this was not a set pattern. What became obvious was that learners seemed to confuse Think and Search Questions and On My Own Questions, and often formulated good On My Own questions when they were asked for Think and Search questions. It seemed that their unfamiliarity (or perhaps some laziness or reluctance) with interacting with a text by looking and re-looking for information in different places (as required for Think and Search questions) was at
times more difficult than making the ‘leap’ to formulating On My Own questions, which do not necessarily require the repeated use of the text and can be formulated based on memory of the text.

A few examples of learners providing On My Own questions for Think and Search questions are provided in Table 13 below. The texts from which the questions were formulated have been attached in Addendums Q1 and Q2. Examples of all three question types are provided in Table 13. Examples appear as they were supplied by learners under the respective question type headings per text.

Where learners misunderstood or confused one question type with another, the incorrect example is displayed in the ‘Incorrect example’ column with the correct question type between brackets behind it (indicated as RT for Right There, T&S for Think & Search and OMO for On My Own questions). Note that not all question types have incorrect examples.

<table>
<thead>
<tr>
<th>Question type</th>
<th>Correct example</th>
<th>Example provided by learner/s</th>
</tr>
</thead>
</table>
| Right There (Text 1)        | • Where did the mice meet?  
• Where does the cat live?  
• How many mice were there? | • Do you think their plans were good? (OMO)                      |
| Think and Search (Text 1)   | • What were the three solutions to the problem?  
• Who was the wise mouse? | • Do you think it would have been a good idea to move? (OMO)       |
| On My Own (Text 1)          | • Do you think it [putting a bell around the cat’s neck] was a good idea?  
• Did the mice put the bell around the cat’s neck?  
• Why didn’t the[y] put the bell around the cat’s neck?  
• Do you think there was a solution to their problem? | • What kind of bowl was it [that the grandmother broke]? (T&S)     |
| Right There (Text 2)        | • Who did the little girl live with?  
• Who looked after the little girl?  
• Who became ill?  
• Why did the little girl keep the wooden bowl? | • What did the mother and father care about the grandmother? (OMO) |
| Think and Search (Text 2)   | • Why couldn’t the grandmother look after the little girl? | • Why did you think they gave her a wooden bowl? (OMO)      |
| On My Own (Text 2)          | • Did the little girl’s parents have respect for the grandmother? | • Why did the father say they don’t think they can replace the bowl? (T&S) |

Table 13: Examples of learners’ questions
Overall, the Grade 5 learners in the Experimental group fared well in the Questioning question of the STT, indicating that they knew how to ask questions in the different categories, which was, indeed, what the STT intended to measure. In terms of using Questioning as a strategy for improving their comprehension, however, it was clear that considerably more practice (exposure to Questioning instruction) would be necessary.

6.3.5 Summarisation

Kelley & Clausen-Grace (2007:156) list some difficulties that, according to them, learners tend to have with summarisation: they do not include what is important, they do not know what is important, they include too much information (retelling instead of summarising), they do not include enough information, they do not know how to use their own words and instead copy parts of the text, and they leave out the main idea or supporting details. The learners who participated in the research intervention were not much different; they did not know how to distinguish the important facts from the unimportant ones, and would ‘retell’ a text instead of summarise it.

Yet, despite summarisation being a difficult concept to learn and time consuming to teach, learners progressed well when their teacher broke her instruction down into small steps. The extent to which they learned to summarise a text was, again, dependent on the instruction they received and the amount of practice they received. It seemed that starting the concept of summarisation at a high level (beginning, middle and end) and slowly working towards more detailed summaries produced the best results. For example, teaching learners to provide a suitable title for a text, or identify the beginning, middle and end of a story proved to be a good starting point, and from there asking them to identify the main idea (summarise a paragraph) and eventually summarise an entire text. Asking learners to provide a title for a text also proved a useful and effective way of teaching summarisation.

Although it would certainly not be accurate to say that learners were experts at summarising fictional texts at the end of the intervention observations, it is fair to say that they performed satisfactorily in the summaries they provided during the intervention. Examples of Grade 5 learners’ summaries are provided below. The texts to which the sample summaries refer have been attached in Addendums Q1 and Q3. Further samples of learner summaries are provided in Addendum H.
Summaries of Text 1 (The Bell on the Cat)

**Learner 62:**

*4 mice and a cat was a problem. They had 3 plans. No one did the plans.*

**Learner 66:**

*Some mice had a problem with a cat. They came up with 3 solutions. Not one of the solutions worked.*

**Learner 82:**

*Four mice had a problem. They came up with some solutions. But the solutions were not a good idea.*

Summary of Text 3 (No title provided, learners had to provide one)

**Learner 77:**

*Mr and Mrs Nixon had a gift for Christopher on his birthday. Everyone gave an clue but they got it all wrong. Sophie gave a few ideas. Finally Sophie said it’s an dog and Mrs Nixon brought the puppy it had an name Lucy.*

The summaries above represent learners’ use of the concepts of Beginning, Middle and End of a text. In the case of Text 1 (The Bell on the Cat) learners’ had started indicating some understanding of the concept of summarisation; some of their replies to the teacher’s question why summarisation was important included “To make it easier to remember”, “[To make it] easier to learn” and “To understand [the text]”. In the case of Text 2 (The Wooden Bowl) the teacher had used a Story Map as the basis for summarising the text under their appropriate headings (setting, characters, problems, solutions and ending). Thereafter she challenged them to write a summary in less than 50 words without the structure of the Story Map. While learners’ language use is not perfect in all instances it is fair to say their summaries capture the main ideas of the text. Summarisation also proved to be the strategy with the highest effect size difference in the Strategy Transfer Test (see 5.2.2).

### 6.4 Conclusion

Even though learners became used to strategy-instruction concepts quickly, their knowledge mostly remained at a conceptual level, i.e. although they learnt fairly quickly how to ask questions of a text, this knowledge (at least during the period of research observations) remained mainly at a text-based level and rarely progressed to a knowledge-based level where they were required to make inferences based on their own knowledge. Generally learners’ instinct remained to wait for the meaning of
a text to be identified and explained to them and accept such explanation without question, as is consistent with teacher-led discussions and question-answer comprehension lessons. Learners did not consider finding and were not encouraged to find their own meaning in or interpretation of a text, something which seemed to inhibit them (at least initially) from asking questions at a knowledge-based level since they were not used to voicing their own opinion of a text. However, the fact that they were not used to being given the opportunity to voice their own opinion did not mean that they were not able to – where teachers relinquished their verbal control of lessons, asked for learners’ input and were seen to react positively to a range of opinions other than their own, learners quickly lost their inhibitions and participated with enthusiasm.

What was noticeable, however, was that being required to ask questions at a knowledge-based level seemed to expose learners’ low literacy levels, particularly their lack of vocabulary and critical thinking skills, which seemed to be compounded by their poor reading and comprehension skills (see 5.1.3). However, as their teachers’ familiarity with strategy instruction grew and a strategy instruction discourse started to develop in a class, learners became increasingly willing (and in some cases, able) to voice their own opinion through asking knowledge-based questions.

Strategy instruction research (see 3.7.2) has shown that poor readers seem to benefit most from strategy instruction; the results of the Strategy Transfer Test (STT) seem to indicate that this held true during the intervention used in this study. While the STT results seem to show that poor readers did indeed benefit from the intervention (see 5.2.2 and 5.2.3), the overall trend was that most learners benefited from the intervention, since most learners could be deemed below-average readers for their age (see 5.1.1).

Furthermore, from observation it was clear that strong readers benefited quickest, in other words, they learnt how to use strategies quicker than their fellow learners who were poor readers. Learners with weaker reading and comprehension scores (as reported in 5.1.1 to 5.1.3) struggled more with higher-level processing, both in summarising text (identifying the main idea/s) and in formulating knowledge-based questions. The fact that stronger readers learnt to apply reading strategies faster, seems to indicate that although the stronger readers amongst the research learners might not have employed reading strategies before the research intervention, the
intervention seemed to ‘unlock’ their ability to use strategies rather than merely teach them how to use strategies.

The discussion of the analysis and interpretation of the qualitative data gathered for this research is hereby concluded. This chapter has described how teachers and learners took on reading strategy instruction, the factors that influenced strategy instruction and to what extent the research intervention affected learners’ knowledge of the strategies taught during the intervention. Generally the results showed that although many factors impact on the quality of strategy instruction, strategy instruction as a concept or methodology is possible, although strategy instruction may need to be adjusted to teaching circumstances (an issue that will be discussed further in the next chapter).

With these results in mind, I will now turn to the final part of this research: recommending a framework for implementing reading strategy instruction in Grades 4 to 6. I do this with a quote from Van Keer & Verhaeghe (2005:544) in mind, who state that “a major issue of concern is the development and implementation of effective ways to prepare teachers to tune their teaching to recent research findings” and that researchers should take up the challenge of constructing professional development that “foster[s] meaningful change in educational practice.”
Chapter 7

Review and Conclusions: Towards Implementation

7.1 Introduction

This study set out to determine the extent to which teachers and learners took up reading strategy instruction and, on the basis of the findings, to construct a framework for implementing reading strategy instruction in Grades 4 to 6. The research questions necessitated the gathering of both quantitative and qualitative data, with the quantitative data providing a frame for the qualitative data. These data, now analysed, provide information for creating a foundation on which a strategy instruction framework can be constructed, and for determining to what extent strategy instruction is possible and required in South African schools.

The preceding chapters have described the steps deemed necessary to create a foundation for implementing a strategy-instruction framework: Chapter 1 described the conceptual framework for this study and placed the study in the ‘gap’ between research and reality. Chapters 2 and 3 provided an interpretation of reading and reading comprehension instruction from a ‘current research’ and ‘current practice’ point of view. Chapter 4 described the research approach and method while Chapters 5 and 6 respectively analysed and discussed the results of the quantitative and qualitative data gathered during the research intervention. During the discussion of qualitative data in Chapter 6 specific issues which emerged from how teachers and learners took on reading strategy instruction (RSI) were identified and described in two categories: what influenced strategy instruction (pre-existing factors at the research school), and how strategy instruction took place during the research intervention. Based on the aforementioned chapters, this chapter aims to conclude this report by making recommendations for a possible framework for reading strategy instruction, describing the limitations of the study and discussing the way forward for future research emanating from the study.

In the sections that follow, the following will be dealt with: (1) a summary of the research conditions and a discussion of how they were met, (2) a review of the research questions and how they were answered, leading to (3) a discussion about
the contribution of the study which will include the construction of a possible framework for strategy instruction, (4) recommendations for implementation, (5) a description of the limitations of the study and, finally (6) future research prospects.

7.2 Addressing the research conditions

During the literature review (Chapters 2 and 3) certain trends were identified in existing literature about reading strategy instruction which led to the formulation of research conditions that determined the context of this study. The trends that were identified include the fact that very little, if any, existing literature on reading strategy instruction (RSI) includes research on learners with an African (including Afrikaans) language as first language, that there does not seem to be a single specific, research-recommended method for RSI and that most research about RSI seems to have been researcher driven instead of teacher driven. To fill these gaps, the conditions of the study included:

- selecting a school in a multilingual community (see 4.1.2)
- making the research intervention teacher driven in collaboration with the researcher (see 4.1.2),
- providing sufficient structure to the intervention, e.g. selecting a core set of starter strategies (see 3.7.5) and a teacher checklist (see Addendum A) in order to (1) provide security for teachers and (2) enable measurement of the effect of the intervention (see 3.7.3 and 4.1.2), and
- selecting a school that represents circumstances which could be said to apply to a large majority of school-going learners in South Africa, so that the final proposed framework could be generically applicable and replicable in most South African schools (see 4.3.1).

As far as adhering to the listed conditions, it is fair to say that this was mostly achieved in a satisfactory manner. The research school is situated in a low-SES community, and while the community’s residents are predominantly Afrikaans-speaking, the school includes EHL-instruction classes and accepts learners whose home language is neither Afrikaans nor English. The learners who participated in the research intervention can be considered bilingual (whether Afrikaans and English, or either Afrikaans or English and an African language) and receive instruction in what in most cases seems to be their L2 (see 6.1.2). The structure and support (preselected set of strategies, teacher checklist and researcher support) provided to teachers in the intervention proved to be useful and provided the structure and guidance most
teachers seemed to require for implementing the intervention – in fact, both Teacher 4 and 5 referred to the checklist throughout their involvement in the intervention.

In terms of the collaborative nature of the intervention, it can best be described as reasonably successful, since full collaboration depended on an acceptance of my role and presence in teachers’ classes – this seemed difficult for some teachers. As discussed at the start of 6.2, teachers generally struggled to move from a paradigm of ‘being evaluated critically’ by classroom observers to ‘participating/contributing collaboratively’ to achieving a specific objective. However, where teachers viewed the nature of the intervention as collaborative instead of judgemental, and accepted the support offered as a learning process instead of viewing it as a critique on their teaching, the implementation of the intervention progressed well. Based on this study it seems that forging a truly collaborative relationship between teacher and researcher is difficult, time consuming and requires a considerable paradigm shift in what teachers regard as their role in education; generally teachers seem content to ‘teach classes’ and implement whatever is required by the applicable authorities, sometimes even while knowing or suspecting that an implementation is not completely effective or suited to their learners. It seems a bit ironic, and, in fact, should be a concern, that the very people who work first-hand with learners on a daily basis are so seldom asked their opinion (or for that matter, so rarely offer their opinion) of the issues about which policy makers and educationalists theorise. At the same time, as a researcher, I was struck by the realities of classroom life: overcrowded classes, lack of sufficient teaching resources, a curriculum with a considerable administrative burden, poor school attendance (see 6.1.1 – 6.1.9) – ‘constraints’ that seem to consume the energy even from teachers who are eager to collaborate, sometimes to the extent that they merely survive their daily teaching and find it difficult to look critically and objectively at their tasks.

An issue pertaining to the conditions of this study that is linked to teacher-researcher collaboration, is the so-called ‘training strategy’ used during the intervention (see 4.4). Typically in-service teacher education and training involves restricted in-service courses presented after school, over weekends or even during school holidays. As discussed in 4.4. and again briefly at the start of 6.2, the intervention ‘training’ provided teachers with sufficient information about reading strategies to start RSI within their own context using their own teaching styles, while having access to significant and on-going researcher support. The collaborative nature of this study’s intervention training approach was to ensure that teachers did not experience “a
higher workload” (against which Van Keer & Verhaeghe (2005:558) caution) but rather had access to sufficient support from the outset and to enable an easier transition to RSI. Regular support also allowed more detailed observations of teachers and learners for the purposes of the study.

However, despite the benefits of continued teacher support as opposed to a single teaching session, a few points warrant mentioning. Firstly, regular support, at least in the manner it was provided during this study, implies that the researcher’s presence in class is increased accordingly – not all teachers like this, despite the benefits of increased support. Furthermore, where teachers struggle to implement the intervention methodologies, the researcher’s increased presence may compound struggling teachers’ reluctance to and uncertainty about continuing their participation. Secondly, because the researcher, who is usually considered the ‘expert’ in terms of the research intervention, is the primary support-giver, the ‘expert’ support disappears when the research ends and the researcher leaves the school. In short, if a researcher (or school, for that matter) is not prepared or able to expand the intervention further at the research school, the possibility of sustained implementation of the intervention methodologies is minimised. Thirdly, it is unlikely that regular teacher training authorities and/or DOE representatives would be able to provide the level of support provided in this study since they have a large number of schools and teachers to evaluate, whereas researchers have the luxury of focusing on one school only for as long as necessary (also see 7.6).

In retrospect it would be fair to say the ‘training strategy’ served its purpose during the intervention and adhered to most of the requirements identified as important for teachers’ uptake of new methodologies (see 3.7.4.2 and 4.4). However, when viewed from the point of view that the intervention should, ideally, be sustained after the research, the following conclusion can be drawn from the three points above: to ensure the sustained implementation of an intervention and continuous professional development, a middle road should be found for providing adequate teacher support. This could include a few options: developing a concise teacher development course based on a short classroom intervention supported by documentation that is detailed enough to serve similar benefits to that of regular personal support. Alternatively, or in addition to this, it would be useful to develop so-called ‘champions’ in schools – individual teachers who are developed to be reading strategy ‘specialists’ and who can offer on-site support to their colleagues as needed. Or, thirdly, schools could be linked explicitly to training institutions to ensure ongoing exchanges between teachers,
student teachers and researchers. A sustained exchange between research institutions and schools could over time begin to address the gap between teaching (practice) and research and lead to reflective practitioners in charge of their own development.

7.3 Answering the research questions

The aforegoing section discussed how the study’s research conditions were addressed. The main research question of this study reads as follows: How can reading strategy instruction be introduced and supported to encourage its application by teachers and learners? The following sub-questions were formulated to guide the study:

1. What influences teachers and learners in taking on reading strategy instruction?
2. How do teachers take on reading strategy instruction?
2.1 How do teachers and their instructional practices change from the start to the end of the research intervention, if at all?
2.2 How do teachers’ instructional changes affect learners’ awareness/uptake of reading strategies?
3. To what extent is the transfer of reading strategy knowledge measurable?

In terms of the extent to which the study’s research questions were addressed, Chapters 5 and 6 discuss the results and analysis of the quantitative and qualitative data gathered during the study in considerable detail. In fact, section 5.2 and its subheadings are linked directly to research question 3, whereas section 5.3 and Chapter 6 as a whole provide answers for research questions 1 and 2 and their subheadings. In the discussion that follows a review of the answers of the research questions will be grouped into three broad categories: the reading strategy instruction context (research question 1), the influence/effect of teachers’ changes on reading strategy instruction (research question 2) and finally the extent to which reading strategy knowledge is measurable (research question 3). The sections that follow will provide a summary of how each research question was addressed by the study in the following manner: firstly the context will be described (i.e. issues that affect RSI and teaching in general) in 7.3.1, secondly the changes in reading strategy instructional practice will be discussed (7.3.2 – 7.3.4) and lastly, the extent to which reading strategy knowledge is measurable will be discussed (7.3.5).
It is important to note that *more weight will be given to the discussion of changes in teachers’ instructional practices, since learners’ reaction to strategy instruction was influenced almost solely by their teachers’ instruction* (see 6.3).

### 7.3.1 Factors that influenced teachers’ reading strategy instruction

As mentioned in 6.2.5 (and discussed in 6.1.1 – 6.1.9), various factors affected how teachers took on RSI. These factors included teachers’ willingness to change and accept (and ask for) support – the amount of support they used seemed to have a direct influence on the quality and quantity of strategy instruction (see 6.2.3.2). Class size (see 6.1.5) also proved to be a considerable influencing factor – the bigger the class, the more difficult it seems to be to manage activities related to RSI, such as discussions for activating learners’ existing knowledge, or allowing learners a fair opportunity to participate. Large classes make it difficult for teachers to relinquish their habitual control over learners and learner responses, since non-teacher led discussions quickly result in unteachable noise levels (see 6.2.2.3). A third factor that influenced teachers’ RSI is learner literacy levels (see 6.1.6) – where learner literacy levels are low, it seems RSI needs to be simplified considerably (smaller steps, increased practice) and the in-depth discussion of texts becomes more difficult.

A fourth and important factor that affects RSI is teachers’ need for structure and guidelines. For this reason the research implementation utilised preselected selection of strategies (see 3.7.5 & 4.4). As was observed during this study, giving teachers a specific set of strategies linked to a checklist seemed to provide structure and security during the initial stages of implementation while they gained experience and increased their knowledge of strategies. A pre-selected set of strategies also provided teachers with sufficient context for the ultimate goal, namely applying strategies independently as and when required. A set of strategies enabled teachers to see each strategy as part of the whole, even during the initial stages of implementation when the tendency is to apply strategies in a linear fashion (see 6.2.2.1) while becoming familiar with strategy instruction principles.

Lastly, observations performed during this study show that the frequency of instruction has a positive effect on teachers’ instructional practices. As is pointed out in 7.3.2 the frequent application of RSI increased positive participation in teachers and learners – this was most noticeable in the Grade 5E class. Although this study returned satisfactory results for the Strategy Transfer Test (see 5.2.2), they were
based on the weekly application of strategy instruction by teachers. Research (Torff & Byrnes, 2011; Pressley & Beard El-Dinary, 1997; Richardson, 1998; Richardson et al., 1991; Huberman & Miles, 1984) confirms that new methodologies which provide sufficient time for classroom implementation are more likely to result in sustained teacher change.

These findings showed that, in order to encourage the uptake of RSI by teachers and learners, its implementation should take into account issues that can be considered school-specific (such as class size, lack of resources, learner literacy levels and teacher knowledge), and that RSI must be structured in accordance with and in reaction to school-specific constraints to support and encourage sustained RSI and teacher change.

7.3.2 Teachers’ instructional practices: from expectation to independence?

Sailors (2008:646) states that “teachers need proof that the topics and practices of professional development activities actually work with [learners]”, an opinion that echoes a statement by Gersten et al. (1997:467) that teachers will “accept and implement effective ways of teaching once they know what they are”. The teachers at the research school were burdened by a lack of resources, overcrowded classes and disproportionate administrative workloads, and while they were acutely aware of their learners’ lack of comprehension skills, wanted a ‘quick fix’, a solution that could be implemented easily with immediate and visible results (see 6.2.1). Reading strategy instruction does not provide a quick solution; as has been discussed in the previous chapters, RSI, for all its benefits, is difficult to implement, requires considerable preparation from teachers and takes time to take effect and, more importantly, show results (see 3.7.3 and 6.2). The teachers at the research school were effected by all three these issues and did not take to RSI easily, even with considerable researcher support. Changes to their instructional practices showed that they moved through four distinct phases (Expectation, Implementation, Experimentation and Independence) in their attempts at RSI (see 6.2.1 – 6.2.4). The crucial phase proved to be the Implementation phase (see 6.2.2 and 6.2.3); it is during this phase that teachers realised the full extent of the additional time, preparation and knowledge required for RSI, and were confronted with the realisation that they had more to learn than they had expected (see 3.7.4.1 & 3.7.4.2).
However, where teachers (most notably the Grade 5 teacher) pushed past the ‘constraints’ of the Implementation phase and saw visible progress in their learners, their application of RSI increased and created a positive cycle of application followed by results. The more frequently RSI was used, the more frequently visible results were observed, and the more positive teachers became about RSI and the more they were disposed to change their practices. Increased application of RSI also seemed to lead to an automatic change to teachers’ lesson preparation and interaction with texts. As teachers’ interaction with a text during preparation increased and improved, so their interest in text genre and text characteristics increased. Teacher 5’s increased use of RSI also assisted her in interpreting the RNCS work schedule requirements – as was discussed in Chapter 3, the RNCS makes reference to the use of strategies but without adding explicit guidelines for their implementation (see 3.4).

These findings showed that whether teachers achieve independence or not will depend as much on the support they are given as on their willingness to change their teaching practices. The findings also show that in order to encourage its participation by teachers and learners, RSI should be structured in such a way that it fits into teachers’ existing day-to-day practices as smoothly as possible, provides adequate resources and sustained support and allows teachers sufficient time to become familiar with RSI concepts in a way that complements their own teaching style and, therefore, encourages sustained change.

**7.3.3 Required teacher knowledge: becoming familiar with RSI**

The concept of reading strategy instruction (and, for that matter, reading comprehension instruction) was new to the teachers who participated in this research. In Chapter 1 (see 1.3) Sailors (2008:653) is quoted as saying that “teachers are taught basic skills of reading instruction [at teacher-training institutions] and sent out to teach with the understanding that, in time, they will learn all that they need to know to support comprehension. This is simply not true.” Observations from this study confirm that expecting teachers to simply ‘learn all that they need to know to support comprehension’ is certainly not true. Where certain knowledge of language and text is absent it is even more unrealistic to expect teachers to know how to teach comprehension effectively. The teachers at the research school are all educated to diploma or degree level, and yet they required knowledge of issues such as text genre, text type, basic summarisation skills and questioning skills. As the intervention progressed it became clear that some teachers
remained uncertain of concepts such as *fiction* and *non-fiction* and their respective genres, or analysing a text structure (characters, setting, plot). All teachers needed assistance with formulating and identifying questions that were not ‘Right There’ questions (i.e. where the answer is obvious from the text and requires no searching for or deduction of meaning), despite discussions and sample lessons about the concepts. Similarly, all teachers were uncertain of how to summarise a text effectively, and where they did attempt summarisation in their classes they only used fictional texts; fictional texts tend to have well-defined structures – beginning, middle and end – which seemed to provide a ‘safety structure’ for teachers. When learners constructed different meanings from fictional texts it was also more comfortably tolerated by teachers because effectively no answer could be off the mark.

Although the issues mentioned above (knowledge of text genre, summarisation and questioning) were often absent, these were issues that could be and were addressed by the intervention. What was of greater concern and interest, was teachers’ underlying linguistic knowledge (see 6.1.9) of and interest in language use and interaction with texts. Even in the absence of reading strategy instruction, their comprehension lessons did not seem to challenge learners to think about a text other than answering pre-set text-based questions. They did not consider issues such as grammar, word emphasis vs. inference, critical thinking; at most they would ask for words that learners did not understand and provide a definition for the word/s. Doubek & Cooper (2007:414) also ascribe this ‘lack of depth’ in teachers’ lessons as being driven solely by the curriculum’s required content (quantity over quality) so that when teachers state they have ‘covered’ a topic without checking for understanding, this “usually reveals they have covered up or glossed over what learners need to know to gain mastery in reading”.

However, despite the fact that teachers often did not seem to have basic linguistic knowledge, as their knowledge and experience of RSI increased, those that persisted with RSI showed increased enthusiasm for and interest in acquiring additional linguistic knowledge. Positive and increased responses from their learners further encouraged the willingness of teachers who participated actively to engage further with RSI and make changes to their instruction. Change and development in teachers depended as much on sustained encouragement and support as on their willingness to learn (change) and enter into a collaborative relationship with the researcher.
The findings from this research show that RSI can be implemented effectively if teachers are treated as participants with a contribution to make (instead of implementers without a voice), if they have the support of the principal (as indicated by Teacher 5 in 6.2.4), are given adequate time to implement a new methodology and are given sufficient post-implementation support. Most importantly, this research showed that where teachers see clear and positive benefits or effects on their learners, their willingness to change increases accordingly (see 6.2.4).

7.3.4 Factors that influenced learners’ reading strategy instruction

The concept of reading strategy instruction was new to all learners who participated in the intervention and they found reading strategy concepts strange at first. Learners, like their teachers, were observed to move through distinct phases in taking on strategy knowledge. Observations showed that learner phases and their associated characteristics depended almost completely on the type of instruction provided by the teachers, and particularly, on the frequency of RSI. Overall the study shows that the further and faster teachers progress in their application of RSI, the further and faster learners seem to progress in their use of reading strategies (see 6.2.2.3). This is a very clear argument for positive teacher change affecting learner performance. As has been mentioned in 6.3.2 learners’ literacy levels seem to affect their ability to interact with texts at more than a superficial level. Block & Duffy (2008:26) describe reading in “successful comprehension situations” as allowing learners to choose their own books, reading more than seven pages of continuous text per day (both fiction and non-fiction) and 20 minutes of silent reading per day. While the National Reading Strategy recommends a ‘drop all and read’ half an hour per day (similar to Block & Duffy’s 20 minutes), it is questionable whether this is common practice in schools. As seen in this study, learners did not have regular access to age-appropriate reading material, nor were they explicitly encouraged to read if they had time to do so upon completing a task ahead of the rest of the class. Although the school was aware of the recommended half-an-hour reading per day, this time was mostly used for administrative purposes or catching up on work for other subjects (most notably mathematics).

The findings from this research suggest that RSI can be implemented effectively if it forms an integrated part of the school’s day-to-day operation (Torff & Byrnes, 2011; Richardson, 1998; Gersten et al., 1997; Pressley & Beard El-Dinary, 1997; Guskey, 1986). However, this also implies that a school’s daily operation includes access to
age-appropriate books, dedicated daily reading time (as is recommended by the National Reading Strategy) and a culture of reading (also see 7.4.2).

7.3.5 Measurable knowledge transfer

While this study set out on the one hand to observe the ‘how’ and ‘why’ of reading strategy instruction for determining a framework for implementation in schools, it also set the objective of providing measurable evidence of knowledge transfer of reading strategies - ‘hard evidence’ that could act as visible encouragement for teachers to change their practice of teaching what is effectively an invisible skill. To enable this measurement, questions related to the intervention strategies and scored according to a rubric (see 4.5.1.3 & 4.5.1.4) were included in two tests administered before and after the intervention respectively. The analyses of the data obtained from the tests show that the transfer of strategy knowledge is measurable, and can be used to compare learners’ knowledge before and after a specific period of RSI – which, if it shows progress, could act as motivation for teachers to continue the application of RSI. The effect size analysis of the change measured (Medium to Very Large according to effect size) in the experimental group’s knowledge of the respective intervention strategies at the end of the intervention (see 5.2.1 and 5.2.2), indicates that the effect of more frequent strategy instruction could have been even greater.

It is, however, important to point out that evidence of the transfer of strategy knowledge does not necessarily signify an increase in or effect on comprehension. However, the successful measurement of strategy knowledge in this study (both in terms of inter-rater reliability and measurement results) seem to indicate that an extended application of RSI could mean that if learners’ comprehension were measured over the same extended period, the measurement of comprehension and measurement of strategy knowledge (as performed by this study) should allow researchers to determine whether a relationship exists between the transfer of strategy knowledge and changes in learners’ comprehension ability.
7.4 Contribution of the study: Towards a Framework for Reading Strategy Instruction

Having addressed the research questions the logical next step is to propose a framework for strategy instruction in Grades 4 to 6. Such a proposal is seen as the main contribution of this study and focuses on two inter-related issues that are implicit in the concept of reading strategy instruction:

- A contribution in the form of a framework for reading strategy instruction (see Figure 12 in 7.4.2) that attempts to close the gap between existing research on RSI (as discussed in Chapters 2 & 3) and the realities of everyday teaching (as discussed in Chapters 5 & 6): the reading strategy part of this phrase is foregrounded.
- A contribution in the form of a description of the changes as they appeared in different phases: the instruction part of reading strategy instruction is foregrounded.

Before doing so, however, it would be prudent to place such a framework within the context of the results of this study (see 7.4.1). Thereafter the above-mentioned two contributions will be discussed separately (see 7.4.2 and 7.4.3). The way in which these two contributions are evident in the context will be discussed next.

7.4.1 Creating a context for a proposed framework: the possibilities of teacher update and instructional change

In proposing a framework for strategy instruction one is effectively attempting to build a framework for future implementation on top of an existing framework containing the factors that define – and often constrain - the ‘current reality’ of education. While it seems unrealistic to propose future change without acknowledging current realities, new methodologies are often implemented without due consideration for existing teaching circumstances. Therefore, the framework proposed in this study has been placed in the context of the factors determined by this study (see 6.1.1 to 6.1.9) - factors that represent ‘current reality’ in South African schools and should be acknowledged as issues that influence and could serve to inhibit teacher change in taking on new implementations.
The context can be illustrated as follows:

**Figure 10: Context for reading strategy instruction framework**

In essence, the context as illustrated in Figure 10 above mimics this study’s conceptual framework (see Figure 1) in that it represents research (the proposed framework) and practice (the issues identified in 6.1.1 to 6.1.9) as factors that are effectively interdependent. Therefore ‘effective strategy instruction’ – the idea of strategy instruction applied successfully without the constraints of current reality - is positioned in the gap between research (the proposed framework which enables strategy instruction) and practice (factors that influence the implementation of strategy instruction and how teachers can be supported to change their professional practice by taking on strategy instruction).

Furthermore, it is important to note that multilingualism has been set as the ‘backdrop’ because it is an issue that effects research and practice in equal measure, and therefore cannot and must not be ignored by any research into teaching or any new teaching implementations in South Africa. Very few South African schools have the luxury of teaching learners in their home language, or teaching learners who speak only one language, a reality acknowledged even in the RNCS.

Having created a context for a reading strategy instruction framework, let us turn to the framework itself.
7.4.2 Proposing a reading strategy instruction framework

The word *framework* has many definitions, for example “a broad overview, outline, or skeleton of interlinked items which supports a particular approach to a specific objective, and serves as a guide that can be modified as required by adding or deleting items” (Business Dictionary, 2010). In essence, a framework enables the representation of ideas, theories and factors at a higher and broader level than a model would. As stated at the start of 6.2, this study does not necessarily represent a final and complete solution to strategy instruction, but rather the creation of a foundation for implementing strategy instruction. Hence this study proposes a framework as opposed to a model, and leaves room for the factors included in the framework to be combined, or even substituted, in more than one way to enable effective strategy instruction.

Various instructional frameworks already exist for reading, such as the Intensive Reading Framework (Hedgcock & Ferris, 2009:163) consisting of pre-reading, reading and post-reading activities, CORI (Concept-oriented Reading Instruction) proposed by Swan (2003) and an adaptation of the gradual release of responsibility model originally proposed by Pearson & Gallagher in 1983 and still recommended by Fisher & Frey (2008).

The reading strategy instruction framework (RSIF) proposed below represents a combination of the conclusions drawn from this study and certain theoretical principles and research-based recommendations discussed in the Literature Review and highlighted during the analysis and interpretation of data. The framework will first be presented below in Figure 11, after which it will be discussed.
As can be seen from Figure 11, the RSIF recommends three steps/phases for assisting in learners’ meaning making, namely establishing, maintaining and consolidating a foundation for meaning making. The reading strategies listed next to each step/phase are the strategies used during this study’s intervention; in Figure 11 they are suggested as possible strategies for each step to indicate that there may well be other, equally effective strategies that can be applied for each of the steps. However, the results of this study show that the suggested strategies form an effective selection which enables a structured approach to RSI (particularly for teachers who are new to strategy instruction). The strategies listed for establishing a foundation for meaning making were, however, found by this study to form a logical starting point, both for teaching strategies (teachers) and for applying strategies (learners).

Block & Duffy (2008:29) describe comprehension as a “fluid cycle of predicting-monitoring-repredicting”. The three steps of the framework (establish, maintain and consolidate) similarly represent a cycle to emphasise that the steps as well as their
suggested reading strategies can and must be applied continuously and interchangeably as the need arises during the reading (and teaching) process. What makes the framework in Figure 11 explicit is that it places the focus on meaning making as a cyclical, non-linear process. The cyclical flow of the steps also allows for the individual application of strategies in continuous response to the repetitive and recursive nature of reading processes. Essentially, although the framework’s phases could well be applied in a linear fashion (much like before, during and after reading phases) they are best applied interdependently and recursively as the meaning-making process requires.

As is further evident from Figure 11, the RSIF should be based on a foundation of frequent application and within a culture of reading (i.e. as much exposure to reading as possible). In addition, each step/phase indicates actions that teachers should perform to enhance strategy instruction. It is important that teachers not only instruct learners in the use of strategies, but that they demonstrate (model) them in a scaffolded approach as often as possible whenever necessary during any step of the framework. As learners become more adept at independent use of strategies, teacher modelling can reduce accordingly.

It is equally important that teachers monitor their learners’ understanding – in other words, teachers should monitor learners’ monitoring of their comprehension and ensure that learners know that they are expected to ask for help when they struggle. Monitoring should be done by direct observation of learners during all steps of the framework, but particularly while reading is taking place. Where teachers notice a lack of or breakdown in comprehension the appropriate measures can be taken – as recommended on the teacher checklist used in this study (see Addendum A), corrective measures could include suggesting that learners re-read a particular section, or read slower or faster.

Overall the RSIF could, and indeed should, be applied to all teaching since reading forms a fundamental part of all learning. The framework should not be restricted to so-called language classes or language teachers only, particularly because the texts used in language lessons tend to be fictional (stories, poems, plays); applying the framework in content subject instruction will enable increased use of strategies on non-fiction texts and ensure the broadest possible application of reading strategies in learners’ meaning-making activities and processes.
7.4.3 To what extent is reading strategy instruction possible?

Having presented a framework the question remains: is reading strategy instruction possible in South African schools? In the light of this study this question is linked closely to the extent to which teachers are willing to adapt their practice on the basis of research to benefit their learners’ reading comprehension. Bearing in mind that the framework must operate within the constraints created by the ‘gap’ between research and practice it is necessary to distinguish between strategy instruction and effective strategy instruction. The literature review and results of this study have shown that reading strategy instruction – in practically any way, form or shape - benefits learners, therefore one could argue that any reading strategy instruction is better than no reading strategy instruction at all. Furthermore, it is fair to argue that any exposure to additional knowledge for teaching reading (comprehension) is beneficial to teachers. Even if teachers do not necessarily teach strategies the way they ‘should’ be taught (e.g. while possessing adequate basic language knowledge, having access to quality literature, frequent application of strategies) or as recommended by the RSIF, they stand to benefit from exposure to principles and knowledge of strategy instruction as part of the larger process of teaching reading and reading comprehension (see 6.2.4).

However, as far as optimal strategy instruction goes, this study concludes that such instruction only seems possible when both worlds come together – in other words, the factors identified as affecting current reality in schools are all negated, and the RSIF is applied as recommended. The ‘current reality factors’ that have been based on issues identified in this study (6.1.1 to 6.1.9) could just as easily be supplemented or substituted by different ‘current reality’ factors that researchers deem as having an influence on language teaching in general and strategy instruction in particular. However, it would seem that the factors identified in this study are fairly representative in terms of South African teaching conditions – in fact, existing research such as Smith & Gillespie (2007) and Gail & Adger (1999) identify similar factors (see 3.7.4.1) to those identified in this study as issues that affect how teachers change and could influence how they take on of new implementations. For example, if research into strategy instruction were to be conducted at a range of schools, the factors identified in 6.1.1 to 6.1.9 should still apply, albeit in different combinations and at different levels of severity. So for example, one could reason that School X, a well-resourced school, serving learners from a high-SES community, with reasonable class sizes and able to provide instruction in what is most learners’
home language, would arguably not be affected by the factors of resources and support (see 6.1.8), class size (6.1.5) or LoLT (6.1.2) to the same extent (if at all) as a school similar to the research school in this study. However, School X might still, for argument’s sake, be affected by teacher expectations (see 6.1.7) and teachers’ knowledge (see 6.1.9).

Overall - and despite the influencing factors described above - this study concludes that strategy instruction is possible. The research teachers, while working in the same conditions and with access to the same level of researcher support, each reacted differently and produced different results. While ultimately the uptake of a new methodology seems to be driven by individual factors such as openness to change and a willingness to engage with new concepts, this study provides evidence that strategy instruction is possible with (1) the correct amount of support to teachers, (2) providing sufficient structure and information in terms of content that must be taught by teachers, and (3) taking a collaborative implementation and sustained support approach.

In addition, and more importantly, this study makes a contribution by identifying how teachers and learners move through phases in the uptake of RSI. As pointed out in 7.3.2 teachers were observed to move through four distinct phases in taking on RSI, sometimes seeming to resemble certain CBAM phases (Andersen, 1997). The four teacher phases identified in this study are Expectation, Implementation, Experimentation and Independence (see 6.2.1 – 6.2.4). As discussed in 7.4.3, although the crucial phase for continued implementation of RSI proved to be the Implementation phase (see 6.2.2 and 6.2.3) the Expectation Phase is also considered important. The Expectation Phase (see 6.2.1) represents the time during an implementation when teachers are aware of a need (for their learners or their own teaching practices) and show strong interest in and hope for what the innovation may bring. However, as pointed out in 6.2.1, teachers’ expectations seem closely bound to their attitudes and beliefs about their learners and current teaching methods, as well as their experience of their existing workload. If an innovation is not positioned carefully and with consideration for teachers’ beliefs about learners and concerns about workload, there is a risk that teachers may lose interest before attempting to implement the innovation (where participation is voluntary), or if participation is compulsory teachers may feel ‘forced’ rather than self-motivated to implement the new methodology. The Expectation Phase should, therefore, be used to clarify what is expected of teachers and, importantly, to emphasise that although most innovations
initially require some additional work, adequate support will be provided throughout the implementation (see 7.5.3).

The fact that one of the teachers started using strategies in her Afrikaans lessons (which was her home language but her learners’ First Additional Language) early in the intervention, seems to indicate the possibility that the phases through which teachers move may differ for instruction in their home language, or if they do not differ, may not be as linear as observed during this study.

This study showed that learners also moved through distinct phases (Adjustment, Repetition and Application). However, the rate at which learners progressed through the phases was directly linked to the quantity and quality of their teachers’ application of RSI and related change and development (such as acceptance of support, increased interaction with text during lesson preparation). Learners generally seemed to adjust to RSI concepts more quickly than teachers, and their enthusiasm for the concepts matched their teachers’ enthusiasm for and confidence in RSI concepts. The research observations showed that repetition was of crucial importance for laying a foundation of knowledge of reading strategies with the ultimate aim of its independent use by learners.

Knowledge of the phases through which teachers and learners move in their uptake of RSI should enable researchers to structure future implementations with these phases in mind in order to increase the sustained application of RSI. With these contributions in mind, as well as other issues pertinent to reading strategy instruction identified during the study, the following section will suggest a few recommendations for implementation in preservice and in-service teacher education.

7.5 Recommendations for implementation

During the course of this study certain issues were highlighted as important for future investigation. In short, the issues can be divided into two broad categories: issues related to teacher education (both in-service and pre-service) and issues related to future research. Since the latter is dealt with in 7.4, this section will focus on recommendations for teacher education. It should, however, be pointed out that the issues discussed in this section are more likely to be implemented for pre-service teachers because as an audience they are more easily accessible than in-service
teachers. Therefore, possible solutions for in-service teachers are included in the recommendations in 7.4.

The following recommendations for implementation in teacher education can be drawn from this study:

### 7.5.1 Explicit reading comprehension instruction in teacher-training courses

According to Sailors (2008:647) the development of teachers pays sufficient attention to teaching reading, but is not focused “specifically on the professional development of comprehension instruction and classroom teachers“. From observations made during this study and observations (as recently as 2010) of pre-service teachers teaching reading at various other schools in the same province, it seems clear that teaching reading continues to neglect or exclude the explicit teaching of comprehension. Comprehension instruction continues to form a three-step process: the teacher announcing the subject (and, on occasion, discussing it briefly), reading the text and asking questions about the text (more often than not pre-set questions provided with the text).

This study recommends the inclusion of explicit comprehension instruction (which would include reading strategy instruction) as part of teaching in general and teaching reading in particular at teacher training institutions. If, for example, student teachers are taught to use reading strategies in their own studies, the chances are greater that they will transfer these skills more automatically and naturally to their future teaching practices. It would also mean that new teachers enter schools with an established ‘set’ of strategies as a starting point for comprehension instruction.

It should be emphasised that including reading comprehension in teacher-training courses should not be restricted to pre-service language teachers, but should apply to all pre-service teachers, irrespective of their specialisation (see 3.6). McCardle & Miller (2009:39) describe how different national panels which investigated what is necessary for improving literacy in the United States and Australia, concluded that “all teachers can play a role in addressing the literacy needs of their students, including those in content area classrooms. Although content area teachers will not be literacy teachers per se ... these teachers can support the literacy needs of their students in learning content-specific vocabulary and comprehension of content material”. Doubek & Cooper (2007:414) point out that “for mathematics educators
who participate [in embedding literacy strategies in their lessons] connecting reading strategies to relevant instructional practice in their discipline has been a challenge”. In view of this concern, and considering how many schools (the research school in this study is a case in point) apply the practice of shared lesson planning for subjects within a grade, it becomes even more important that teachers of all subjects learn to include comprehension instruction principles in their lesson preparation.

7.5.2 Identify ‘linguistic knowledge’ required for reading strategy instruction

The results of this study show that some level of knowledge of language and text is beneficial to effective strategy instruction. It is, however, necessary to make a distinction between language (linguistic) knowledge for language teaching in general and the knowledge required for strategy instruction in particular. Whereas some studies exist for the former, little, if any, research exists for the latter. As discussed in 6.1.9 studies such as Joshi et al. (2009), McCutchen et al. (2002) and Moats and Foorman (2003) found that teachers seem to lack specific linguistic knowledge required to teach reading and that links exist between teachers’ linguistic knowledge and their learners’ reading achievement. However, these studies seem to have tested teachers’ content knowledge of language and reading instruction; teachers’ knowledge about teaching comprehension does not seem to have been addressed, nor is specific mention made of text knowledge (which in the opinion of this study, is equally important for effective reading strategy instruction).

If, as the above-mentioned studies (and this study) seem to indicate, some form of ‘basic’ linguistic knowledge is necessary for teachers to teach reading effectively, then the need for linguistic knowledge to teach reading strategies (as identified in this study) becomes even more important. Reading strategies are not only about acquiring an increased knowledge of language and text in general, but about applying such knowledge to construct meaning from a text - in other words, it implies a higher processing level than, for example, ‘proper’ spelling, word recognition and grammar usage. However, exactly what can be regarded ‘sufficient’ linguistic knowledge for teachers seems to be a question that requires further research (see 7.7).
7.5.3 Adaptation in teacher support to engender lasting change

Huberman & Miles (1984:273) point out that the success of new innovations depends almost entirely on the “amount and quality of assistance” that users receive once a new process is under way. Based on observations performed for this study, two things are evident about teacher support in terms of new implementations: (1) training and development of teachers should be explicit and place new methodologies in the context of the curriculum as a whole (compared to existing Departmental training sessions that seem to focus on information sharing about new methodologies in apparent isolation), and (2) teachers require sustained post-implementation support and collaboration (as opposed to critical observation) to ensure lasting change in their practices.

As far as researcher-led implementations are concerned, it is important to ensure that support for the implementation is clear from the top down – i.e. the implementation has the principal’s active support (Anderson, 1997). Secondly, a clear link must be created with what teachers are already doing in their classrooms – new methodologies must be integrated meaningfully into life at the school (Torff & Byrnes, 2011). Thirdly, the duration of the intervention must be carefully considered – an intervention should not be considered complete once ‘training’ of teachers has taken place, but rather once clear evidence of (sustained) change in teachers’ practices and learners’ outcomes are visible. Van Keer & Verhaeghe (2005) point out that teachers’ perception of additional workload after short, in-service training seems to be greater than with year-round coaching of the same methodology, particularly where the innovation involved a completely new concept. Lastly, teachers should be treated as collaborators (instead of followers or implementers) and be given sufficient time to become used to new methodologies before being formally ‘evaluated’ (by persons other than researchers, such as curriculum advisers).

However, the challenge lies in how teacher support can be provided in a realistic and practical manner, i.e. taking into account that neither researchers nor curriculum advisers can be deployed at individual schools for long periods of time. As pointed out in 7.2, a possible solution for sustained teacher support could be to develop so-called ‘champions’ in schools – teachers who have been trained to be reading strategy ‘specialists’ and who can offer on-site support to their colleagues. Or linking schools to training institutions to ensure ongoing exchanges between teachers, student
teachers and researchers (a collaboration that could, over time, begin to address the gap between teaching (practice) and research).

7.5.4 Research component in PRESET, INSET and professional development courses

McCardle and Miller (2009:21) state that although the need for improved literacy skills has been noted “for many decades” the push for “evidence-based practices in literacy is relatively recent”. Yet, while research about research-recommended teaching methods is on the increase, the results of such research often do not reach in-service teachers, and neither do they seem to be disseminated to pre-service teachers in a sustainable manner. Furthermore, researchers are very often teacher educators at the same time, and as such are expected to perform research amidst various other activities, such as lecturing, assessing and their own studies. Joshi et al. (2009:614) state that for some teacher educators “[research] activities are difficult to pursue” since higher education institutions do not always have funds to support travel or memberships, and teacher educators “teach so many classes that there is little time or energy left to delve into current research”.

On the other hand, Walsh, Glaser & Wilcox (2006) criticise teacher training institutions for not including sufficient information and direction about research-proven methods and theory in their reading courses, and that course objectives are often too broad, using vague terms such as ‘well-balanced’ in reference to language and/or teaching approaches in their course outcomes. It is questionable whether inexperienced student teachers can be expected to promote and practice evidence-based methodologies if they are not taught explicitly and are not given some exposure to some form of research themselves. Perhaps including a research component in all undergraduate student-teacher courses could serve to unlock awareness of research in student teachers. Perhaps, instead of being expected to produce yet another set of teaching aids, students could be asked to produce research assignments on specific and pertinent issues related to literacy (such as reading comprehension instruction or the effect of multiple languages on teaching). At an immediate level the inclusion of a research module could serve to make undergraduate students more aware of and open to the value of evidence-based methods; on a long-term level, it could lead to a shift in attitude towards evidence-based methods in schools as these students enter schools as teachers, and perhaps even raise the level of interest in postgraduate studies. INSET and teacher
development courses have the advantage that teachers may already have experienced problems with reading comprehension and be more willing to attempt classroom-based investigations to improve their own practice.

**7.5.5 Strengthen multilingual teaching principles in teacher-training courses**

As was evident from observations at the research school in this study, teachers in general seem to have little tolerance for and understanding of learners who do not speak the language of instruction; in fact, some teachers openly questioned the presence of learners in their classes based on their home language. Although, in theory, governing bodies in South African schools are required to stipulate how their schools will promote multilingualism, this does not seem to be common practice – or, if multilingualism is addressed, it usually includes instruction in English and Afrikaans (i.e. the languages for which, historically, adequate learning material exists). On the basis of the perception that English is the language required for ‘success’ (see 3.5), many schools seem to default to using English as LoLT and do not seem to expect teachers to learn or apply the principles of multilingual teaching. Gebhard (2010:797) points out that although educational policies make provision for the needs of English language learners, the goals set out in these policies have been “undercut by a lack of attention to teachers’ professional development and commitment to quality native-language instruction” which meant that “many teachers have had little or no preparation for providing the assistance that second language learners need to understand how academic language works”.

This recommendation specifically states that multilingual teaching principles should be ‘strengthened’, because it would be unfair to say that no awareness of the importance of the effect on teaching exists – rather that little seems to be done to implement what is necessary to address the issue. For example, an electronic search was performed for the word ‘multilingual’ in the Education yearbook/handbook of eight major universities in South Africa27. Out of the eight universities a yearbook/handbook was found for five, and of the five universities only two (University of Johannesburg and Stellenbosch University) returned a result for the use of ‘multilingual’ in the context of teacher training (as opposed to references to university language policy). There are, however, South African teacher training

---

27 The universities included in the search were: University of Cape Town, Stellenbosch University, University of the Western Cape, University of Johannesburg, University of Pretoria, Nelson Mandela Metropolitan University, University of KwaZulu Natal and the University of the Free State.
institutions that already offer courses in multilingual education. Examples include a Multilingual Education course as part of the Continuing Professional Teacher Development course offering at the University of Cape Town, and a Multilingual Education module as part of the Postgraduate Certificate in Education and B.Ed. Honours degree at the University of Stellenbosch.

However, these courses seem to serve as electives; what would be preferable is to make such courses a prerequisite part of every teacher training qualification at undergraduate level, rather than only at postgraduate and continuing teacher training level. Van der Walt (2010b), in commenting on a multilingual education module offered as part of teacher training at a tertiary institution, calls for a more overt focus on strategies for learning in more than one language. Tatar & Horenczyk (2003:405) state that “teacher training at all levels should provide teachers with knowledge of – and experience with – cultural diversity”, and Nel (1992) states that a “commitment to change and innovation” is necessary at pre-service teacher level in order to bring about positive effects in multicultural education.

7.6 Limitations of the study

As already alluded to in 7.1 the level of researcher support, although a distinct advantage of the intervention, can also be considered a limitation since similar levels of support would be unlikely from curriculum advisers or other departmental bodies. Apart from the level of support, a few other limitations need to be pointed out.

The study was performed at one school with four teachers (three who participated in the intervention and one who was the teacher of the Control Group class) and a total of 163 learners. Although the research school was selected in accordance with the research conditions, it could be argued that involving a second school, perhaps from a different SES community, would have provided valuable data for comparison, particularly in determining to what extent the factors described in 6.1.1 to 6.1.9 influence schools differently. Including more teachers would also have served to strengthen the conclusions about the phases teachers move through in their uptake of RSI. Although a further aim of the study was that whatever framework was deduced from the research could be generically applicable and based on circumstances replicable in most South African schools (see 4.3.1), it could have been valuable to strengthen the framework with data from more than one school.
The duration of the study (two school terms) can also be viewed as a limitation. Although the duration could be considered as sufficient for the study’s aims (gathering data for proposing a strategy instruction framework and enabling the measurable transfer of strategy knowledge), the longer application of the intervention will prove valuable, particularly in terms of taking the study a step further by determining how it affects reading comprehension, instead of simply the transfer of strategy knowledge.

7.7 Future prospects

Based on the aforegoing sections, the following issues warrant further investigation, both for language teaching in general and reading strategy instruction in particular.

(1) Determining what can be considered ‘sufficient basic knowledge of language and text’ for teachers. This could include:
   • determining the effect, if any, of multilingualism on such basic knowledge
   • determining how to measure such basic knowledge (i.e. setting a measurable standard, perhaps laying a foundation for a certificate course along the lines of existing courses such as IELTS, but with a focus on teaching)
   • determining the level of basic knowledge in more languages than just English
   • making such basic knowledge a required module in teacher-training courses, irrespective of subject specialisation

(2) Extending the intervention used in this study for longer periods to:
   • other classes in the research school,
   • other schools, perhaps serving a community with a different SES status.

(3) Determining to what extent reading strategy instruction is possible where learners receive instruction in a language/s that differs from the language of available literature/texts, or where learners have no ‘proper’ command of any single language, irrespective of whether it is the LoLT or not.

7.8 Final thoughts

In general research findings seem to attribute modest but consistent comprehension gains to strategy instruction. However, as Koda (2004: 222) states, little information is available about which specific aspects of instruction are actually responsible for
reported gains. Koda (2004:218) further points out that “systematic connections between particular sets of strategies and reading effectiveness” have not yet emerged, nor does research properly explain the extent to which “instructional benefits are affected by other variables”, such as reader characteristics, text properties and task nature (p. 221).

This study’s findings represent a step towards describing what is necessary for reading strategies to take effect by firstly proposing a reading strategy instruction framework which utilises a particular set of strategies as one solution to improving reading comprehension in the longer term, and secondly, by identifying the need for basic language and text knowledge for teachers. Doubek & Cooper (2007:413) point out that “the gap between theory and practice remains wide in terms of how reading methodologies are taught and applied in the field [schools]”. In keeping with the aim of the study, the framework proposed in this study suggests a way of bridging the gap between research and practice. A real bridge requires solid ground on both ends; building a theoretical bridge (as is effectively proposed by the framework) is even more precarious since any attempt to bridge the gap between research and reality is dependent on the sustained activation of factors from both worlds – something which is difficult to effect and even more difficult to sustain. It is clear that an extended and concerted effort is necessary to confirm the value of reading strategy instruction amongst teachers and administrators in order to establish it as a permanent part of South African school literacy instruction.

On a personal note it is gratifying to see that the revisions to the National Curriculum for the Intermediate Phase (as supplied by the final draft of the Curriculum and Assessment Policy Statement 2011 – see Addendum S for extract) now includes a more nuanced guideline for reading instruction with what seems to be a specific focus on teaching comprehension: it divides reading instruction into pre-reading, reading and post-reading stages, much like the stages suggested by the Intensive Reading Framework (Hedgcock & Ferris, 2009) and includes most of the reading strategies used in this study.
References


Street, B.V. & Street, J. 1995. The schooling of literacy. In Street, B.V. *Social Literacies: critical approaches to literacy in development, ethnography and education*. New York: Longman.


Addendum A – Teacher Checklist

**BEFORE READING**

**PURPOSE**
Why am I reading this text?
- Pleasure (reading period, library book, etc)
- Information (assignment, comprehension test, etc)
- Learning (exams)

**TEXT TYPE** – narrative (story) or expository (factual) + GENRE

**ACTIVATE PRIOR/EXISTING KNOWLEDGE**
What do I already know about the subject?
- Words (any words related to subject)
- Facts (sentences)

**Teacher**: expand on ideas (Why do you say that? How would that work? etc.)

**MAKE PREDICTIONS/ASK QUESTIONS**
Make predictions & ask questions about the subject

**DURING READING**

**MONITOR UNDERSTANDING**
ASK yourself: *Do I understand what I am reading?*

If not:
- Stop, go back and re-read from where you stopped understanding
- Read slower
- Read faster (skip ahead and check if you can find the meaning)
- Ask teacher for help

**Teacher**: Check for interference (caused by reading skill, outside influence (noise), loss of attention, lack of motivation).

**Learners**: CHECK PREDICTIONS & QUESTIONS – was my prediction correct, and can I find the answer to my questions while reading?

**AFTER READING**

- **CLARIFY** that all vocabulary is understood
- **ASK QUESTIONS** about text (Right There, Think & Search, On My Own)
- **SUMMARISE** what you have read in writing

**GUIDELINES:**
- Repeated practice as often as possible
- Apply to content subjects (social sciences, etc.)
- Repeated demonstration by teacher
- Be patient! Reading comprehension progress takes time.
- Read for 30 minutes daily (continuous text)
## Addendum B – Assessment Schedule

### Assessment Schedule

<table>
<thead>
<tr>
<th>Teacher Observed instruction</th>
<th>Learner Observed response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before reading</strong></td>
<td></td>
</tr>
<tr>
<td>- Asks learners to identify purpose for reading specific text</td>
<td>- Identifies purpose for reading</td>
</tr>
<tr>
<td>- Asks learners to identify main text type and genre</td>
<td>- Identifies main text type and genre</td>
</tr>
<tr>
<td>- <strong>Activates Prior Knowledge</strong></td>
<td></td>
</tr>
<tr>
<td>Text topic (and/or content) is discussed to activate learners’ existing knowledge of topic</td>
<td>- Participates in discussion about topic (provides words, facts, sentences to indicate understanding of topic)</td>
</tr>
<tr>
<td>- Asks learners to <strong>predict</strong> outcome and/or content of text, and/or formulate questions about the text</td>
<td>- Makes predictions about text and/or formulates questions about text</td>
</tr>
<tr>
<td>Comments:</td>
<td>Comments:</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>During reading</strong></td>
<td></td>
</tr>
<tr>
<td>- Checks for comprehension interference &amp; addresses interference when it occurs</td>
<td>- Monitors own understanding by asking “Do I understand what I am reading?”</td>
</tr>
<tr>
<td>- Checks that learners identify words or phrases that need clarification</td>
<td>- Identifies words or phrases that need <strong>clarification</strong> by marking them</td>
</tr>
<tr>
<td>Comments:</td>
<td>Comments:</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>After reading</strong></td>
<td></td>
</tr>
<tr>
<td>- <strong>Clarifies understanding</strong> of unknown words or phrases</td>
<td>- Confirms understanding of words or phrases that needed clarification</td>
</tr>
<tr>
<td>- Asks <strong>questions</strong> from each QAR category and/or asks learners for questions from each QAR category</td>
<td>- Answers questions from each QAR category, and/or formulates questions from each QAR category</td>
</tr>
<tr>
<td>- Provides <strong>summarisation</strong> guidelines (character map, story map, etc.)</td>
<td>- Summarises the text according to guidelines supplied by teacher</td>
</tr>
<tr>
<td>Comments:</td>
<td>Comments:</td>
</tr>
</tbody>
</table>

** Words in bold signify formal reading strategies
Accompanying notes for observations

<table>
<thead>
<tr>
<th>Before reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Sequencing in this section is not prescriptive. E.g. if teacher chooses to discuss topic (Activate Prior Knowledge) before handing out text, text type and purpose will follow when text has been handed out.</td>
</tr>
<tr>
<td>• Part of identifying purpose for reading specific text is to discuss difference in reader concentration required, related activities (taking notes, etc.). Is related to text type.</td>
</tr>
<tr>
<td>• Main text type (fiction or non-fiction) and genre (Fiction: horror, fantasy, myth, folklore, parable, poetry, etc., Non-fiction: interviews, diaries, pamphlets, advertisements, instructions, etc.)</td>
</tr>
<tr>
<td>• Activates Prior Knowledge: Text topic (and/or content) is discussed to activate learners’ existing knowledge of topic. Text can be handed out before or after discussion.</td>
</tr>
<tr>
<td>• Asks learners to predict outcome and/or content of text, and/or formulate questions about the text. All (reasonable) answers should be accepted, as they are predictions and questions about a text that has not yet been read. The aim is to create interest in and motivation for reading the text. Learners must look forward to checking if their predictions are correct and whether they can answer the questions they posed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>During reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Addressing/noting comprehension interference is especially important during silent, individual reading. Interference could include learners’ individual reading skill, outside interference such as noise, loss of attention, lack of motivation, fellow learner causing a disturbance, etc.</td>
</tr>
<tr>
<td>• Teacher is aware of interference and addresses it one on one (if during silent, individual reading).</td>
</tr>
<tr>
<td>• Checks that learners identify words or phrases that need clarification, preferably in writing.</td>
</tr>
<tr>
<td>• Teacher repeatedly checks that learners are monitoring their understanding (i.e. asking themselves “Do I understand what I’m reading?”).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>After reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Clarifies understanding of unknown words or phrases. If learners are not forthcoming with problem words or phrases, teacher should be proactive and have identified words or phrases herself and discuss these (to ensure shy or reluctant/poor learners who might be wary of identifying words or phrases comprehend as much as possible).</td>
</tr>
<tr>
<td>• Asks questions from each QAR type. QAR includes two question categories:</td>
</tr>
<tr>
<td>• Text-based questions, namely Right There Questions (found easily and directly in text) and Think &amp; Search Questions (also found in text, but requires thinking, finding and linking information in text).</td>
</tr>
<tr>
<td>• Knowledge-based Questions, namely On My Own Questions (answers not found in text, but can be deduced/inferred through use of existing knowledge).</td>
</tr>
<tr>
<td>• Questioning and summarisation are difficult skills and do not have to be included in the same lesson until learners are comfortable with both concepts.</td>
</tr>
<tr>
<td>• Every question type can be treated in a separate lesson. Same text can be used for practising more than one QAR type. Paragraphs instead of full texts also useful for practicing questioning (enables more repetition with less teacher preparation)</td>
</tr>
<tr>
<td>• Learners must be able to identify and answer questions from each QAR category before being asked to formulate questions from each category.</td>
</tr>
<tr>
<td>• Provides summarisation guidelines (character map, story map, etc.). Recommend character analysis and story analysis be treated in separate lessons until learners comfortable with both concepts. Thereafter “general” summarisation of “describe story in your own words in XX sentences” can be attempted.</td>
</tr>
</tbody>
</table>
Addendum C – Burt Word Reading Test

Word list as read by learners

to is up for big
he at one my sun
went girl boys day some
his that of an wet
love water no just pot
or now things told sad
carry village quickly nurse beware
return scramble twisted journey luncheon

THE BURT WORD READING TEST
© 1981, Scottish Council for research in Education

<table>
<thead>
<tr>
<th>Word</th>
<th>Correct</th>
<th>Number correct</th>
<th>Nouns Used</th>
<th>Boys</th>
<th>Girls</th>
<th>Boys &amp; Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>to</td>
<td>is</td>
<td>up</td>
<td>for</td>
<td>big</td>
<td></td>
<td></td>
</tr>
<tr>
<td>he</td>
<td>at</td>
<td>one</td>
<td>my</td>
<td>sun</td>
<td></td>
<td></td>
</tr>
<tr>
<td>went</td>
<td>girl</td>
<td>boys</td>
<td>day</td>
<td>some</td>
<td></td>
<td></td>
</tr>
<tr>
<td>his</td>
<td>that</td>
<td>of</td>
<td>an</td>
<td>wet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>love</td>
<td>water</td>
<td>no</td>
<td>just</td>
<td>pot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>now</td>
<td>things</td>
<td>told</td>
<td>sad</td>
<td></td>
<td></td>
</tr>
<tr>
<td>carry</td>
<td>village</td>
<td>quickly</td>
<td>nurse</td>
<td>beware</td>
<td></td>
<td></td>
</tr>
<tr>
<td>return</td>
<td>scramble</td>
<td>twisted</td>
<td>journey</td>
<td>luncheon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>known</td>
<td>shelves</td>
<td>explorer</td>
<td>tongue</td>
<td>projecting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>terror</td>
<td>serious</td>
<td>belief</td>
<td>events</td>
<td>emergency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>refrigerator</td>
<td>steadiness</td>
<td>obtain</td>
<td>overwhelmed</td>
<td>universal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>nourishment</td>
<td>encyclopedia</td>
<td>commenced</td>
<td>circumstances</td>
<td>fringe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>formulate</td>
<td>motionless</td>
<td>trudging</td>
<td>theory</td>
<td>destiny</td>
<td></td>
<td></td>
</tr>
<tr>
<td>scarcely</td>
<td>exhausted</td>
<td>labourers</td>
<td>urge</td>
<td>atmosphere</td>
<td></td>
<td></td>
</tr>
<tr>
<td>apprehend</td>
<td>binocular</td>
<td>domineer</td>
<td>melodrama</td>
<td>economy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ultimate</td>
<td>reputation</td>
<td>humanity</td>
<td>excessively</td>
<td>philosopher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>autobiography</td>
<td>contemptuous</td>
<td>terminology</td>
<td>mercenary</td>
<td>glycerin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>unique</td>
<td>microscopical</td>
<td>perpetual</td>
<td>efficiency</td>
<td>influential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>perambulating</td>
<td>renown</td>
<td>physician</td>
<td>champagne</td>
<td>exorbitant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>hypocritical</td>
<td>atrocious</td>
<td>constitutionally</td>
<td>contagion</td>
<td>palpable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>melancholy</td>
<td>eccentricity</td>
<td>fatigue</td>
<td>phlegmatic</td>
<td>fallacious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>alienate</td>
<td>poignancy</td>
<td>phthisis</td>
<td>ingratiating</td>
<td>subtlety</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:
Addendum D1 – Cloze Test for Grade 4

Cloze test for Grade 4

Many different people are _______ car drivers.
Some drivers _______ men, and some drivers _______ women.
Some drivers are _______, and some drivers are _______.
But all of these people _______ to drive fast around _______ track.

There are lots _______ different racetracks.
Some are _______ tracks, and some are _______ tracks. Some are straight
_______, and some are curved _______.
Some are long tracks, _______ some are short tracks.

_______ are different, too.
_______ are made for the _______ they will be driven at and the speeds
they _______ be driven at.
But _______ all have to be _______ safe.

All race car _______ go to a car _______ school.
They are shown _______ to turn and pass _______ stop.
They are shown _______ to drive safely at _______ speeds.
They are shown _______ to do if they _______.
They have to learn _______ these things because driving _______ race car is risky.

_______ race car drivers must _______ a seat belt.
Addendum D2 – Cloze Test for Grade 5

Cloze test for Grade 5

Have you ever wished you could be part of _______ story from a film or book you like?
You _______ be the hero of a science-fiction story or _______ wild adventure. You could see how it feels to _______ a spaceship, or drive a race car, or fly _______ plane.
You can do all these things using virtual reality.

_______ reality is a world made by a computer. The _______ makes a new world, and you feel as if _______ are part of the action in this new world.
_______ reality lets you race cars on famous racetracks or _______ golf on famous courses.

Sometimes in virtual reality, you _______ a special headset. This headset uses small television tubes _______ lenses to beam pictures from the computer into your _______.
The headset tracks how your head moves so that _______ view you see changes as you turn your head.

_______ reality sometimes uses a glove called a dataglove. This _______ tracks where your hand and fingers are. You can _______ your virtual hand in the headset. When you move _______ real hand, your virtual hand moves too. This lets _______ pick things up and move them around the _______ world.
Addendum D3 – Cloze Test for Grade 6

Cloze test for Grade 6

Imagine swimming deep under the water through a long _______ passage. Above you is a mass of soil and _______. Ahead, your light shines into the darkness. This is _______ dangerous sport of cave diving.

Meet Lyn and Neil Vincent. _______ are cave divers. Driven by curiosity and a love _______ adventure, they explore water-filled caves deep under the _______. They love the excitement, the danger, and the idea _______ going where no one has gone before.

Lyn and Neil _______ always dive together. They photograph plants growing under the _______ and huge hanging stalactites. Stalactites are rock formations that _______ from the walls and ceilings of some limestone caves.

Lyn _______ dives at a special cave reserve four hours away _______ her home. Most of the caves there are safe _______ diving, but Lyn must apply for a special permit _______ dive in the cave she likes best. This cave _______ a dangerous opening that could easily injure an inexperienced _______ diver. Once Lyn is inside the cave, she never _______ to be amazed by the delicate and fragile rock _______ she sees.

Lyn and Neil carefully check their diving _______ caving gear before each dive. They carry their equipment _______ rope ladders to underground chambers.
Addendum E – WCED literacy results for research school

Western Cape Education Department literacy results for research school

**Note:** the information in this annexure was retyped from the original WCED document to protect the identity of the school.

This annexure provides the results of two separate assessments:

- Grade 6 Systemic Evaluation Results (2009)
- Annual Literacy National Assessments (2009)

**Section A: Grade 6 Systemic Evaluation Results 2009**

The heading on the official document, dated 22 February 2010, reads “2009 Grade 6 assessment results”; however, in the body of the letter, the following is stated: “Please note the assessment test included Grade 3 to Grade 7-level questions for numeracy and Grade 3 to Grade 6-level questions for literacy. [The tables below], therefore, report results at these grades”. The document further states that 50% was used as the “attainment standard” (pass percentage) for learners.

For the purposes of this Addendum the research school’s overall classification is provided (numeracy and literacy), where after only tables for literacy results are reported on, since numeracy does not pertain to the focus of this study. Where fields have been left blank, no results were provided by the WCED.

**School classification:**
- Numeracy: Very weak
- Literacy: Weak
- Overall: Very weak

**Summary 2007 vs. 2009**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>2007</th>
<th>2009</th>
<th>Difference</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numeracy</td>
<td>4.1</td>
<td>8.8</td>
<td>4.7</td>
<td>Minor improvement</td>
</tr>
<tr>
<td>Literacy</td>
<td>44.3</td>
<td>34.4</td>
<td>-9.9</td>
<td>Decreased</td>
</tr>
</tbody>
</table>

**Literacy results**

Table 5a: Competency at grade level

<table>
<thead>
<tr>
<th>Literacy</th>
<th>Grade 3</th>
<th></th>
<th>Grade 4</th>
<th></th>
<th>Grade 5</th>
<th></th>
<th>Grade 6</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ave %</td>
<td>Pass %</td>
<td>Ave %</td>
<td>Pass %</td>
<td>Ave %</td>
<td>Pass %</td>
<td>Ave %</td>
<td>Pass %</td>
</tr>
<tr>
<td>School</td>
<td>68.7</td>
<td>85.6</td>
<td>52.0</td>
<td>52.0</td>
<td>35.4</td>
<td>37.6</td>
<td>38.5</td>
<td>34.4</td>
</tr>
<tr>
<td>Circuit</td>
<td>59.1</td>
<td>71.9</td>
<td>45.4</td>
<td>41.1</td>
<td>45.4</td>
<td>47.1</td>
<td>37.5</td>
<td>29.4</td>
</tr>
<tr>
<td>District</td>
<td>71.4</td>
<td>83.6</td>
<td>57.7</td>
<td>59.4</td>
<td>55.0</td>
<td>61.5</td>
<td>50.3</td>
<td>52.2</td>
</tr>
<tr>
<td>Province</td>
<td>72.8</td>
<td>85.8</td>
<td>56.1</td>
<td>57.0</td>
<td>54.1</td>
<td>59.8</td>
<td>48.2</td>
<td>48.6</td>
</tr>
</tbody>
</table>
Table 5b: Results for Grade 6 classes at research school

<table>
<thead>
<tr>
<th></th>
<th>Grade 3</th>
<th>Grade 4</th>
<th>Grade 5</th>
<th>Grade 6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class</strong></td>
<td>Ave %</td>
<td>Pass %</td>
<td>Ave %</td>
<td>Pass %</td>
</tr>
<tr>
<td>6A*</td>
<td>78.9</td>
<td>93.0</td>
<td>67.1</td>
<td>74.4</td>
</tr>
<tr>
<td>6B</td>
<td>65.4</td>
<td>82.9</td>
<td>48.8</td>
<td>48.8</td>
</tr>
<tr>
<td>6C</td>
<td>61.4</td>
<td>80.5</td>
<td>39.4</td>
<td>31.7</td>
</tr>
</tbody>
</table>

* 6A is the English Home Language class (as reported on in this study)

Table 7: Average mark and pass percentage Languages Learning Outcomes

<table>
<thead>
<tr>
<th>Competency</th>
<th>Grade 3</th>
<th>Grade 4</th>
<th>Grade 5</th>
<th>Grade 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ave %</td>
<td>Pass %</td>
<td>Ave %</td>
<td>Pass %</td>
</tr>
<tr>
<td><strong>Reading (LO3)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52.0</td>
<td></td>
<td></td>
<td>35.4</td>
<td>37.6</td>
</tr>
<tr>
<td><strong>Writing (LO4)</strong></td>
<td>68.7</td>
<td>85.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>35.4</td>
<td>37.6</td>
</tr>
</tbody>
</table>

Table 8: Learner performance in terms of knowledge and skills

<table>
<thead>
<tr>
<th>Grade level</th>
<th>LO</th>
<th>Knowledge/Skill</th>
<th>2007</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ave %</td>
<td>Pass %</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>Unscramble letters</td>
<td>55.6</td>
<td>62.3</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>Words from pictures</td>
<td>52.3</td>
<td>68.9</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>Comprehension (approx 150 words)</td>
<td>43.3</td>
<td>41.8</td>
</tr>
<tr>
<td>5</td>
<td>3,4</td>
<td>Read and interpret a map</td>
<td>41.5</td>
<td>45.1</td>
</tr>
<tr>
<td>6</td>
<td>3,4</td>
<td>Comprehension (approx 100 words)</td>
<td>43.5</td>
<td>45.1</td>
</tr>
<tr>
<td>6</td>
<td>3,4</td>
<td>Read &amp; interpret a report (approx 160 words)</td>
<td>54.6</td>
<td>68.0</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>Write a 10-sentence paragraph based on the report above</td>
<td>11.1</td>
<td>6.6</td>
</tr>
</tbody>
</table>

**Section B: Annual Literacy National Assessment results (2009)**

<table>
<thead>
<tr>
<th>Grades</th>
<th>% Average mark per grade</th>
<th>1 0% - 34%</th>
<th>2 35% - 49%</th>
<th>3 50% - 69%</th>
<th>4 70% - 100%</th>
<th>No. of absentees</th>
<th>Total no. of learners (grade enrolment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1</td>
<td>43</td>
<td>83</td>
<td>54</td>
<td>52</td>
<td>18</td>
<td>13</td>
<td>220</td>
</tr>
<tr>
<td>Grade 2</td>
<td>54</td>
<td>32</td>
<td>19</td>
<td>56</td>
<td>32</td>
<td>8</td>
<td>147</td>
</tr>
<tr>
<td>Grade 4</td>
<td>44</td>
<td>78</td>
<td>33</td>
<td>44</td>
<td>13</td>
<td>4</td>
<td>172</td>
</tr>
<tr>
<td>Grade 5</td>
<td>55</td>
<td>48</td>
<td>30</td>
<td>45</td>
<td>34</td>
<td>2</td>
<td>159</td>
</tr>
<tr>
<td>Total numbers</td>
<td>241</td>
<td>136</td>
<td>197</td>
<td>97</td>
<td>27</td>
<td>27</td>
<td>698</td>
</tr>
</tbody>
</table>
Addendum F – Exploratory Test

Exploratory Test Grade 5

Before you start to read a text, what must you ask yourself?

________________________________________

Look at the title of the text (Town Mouse and Country Mouse). Write down FIVE things (words or facts) that you already know about “town”, “country” and “mouse”.

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

Write down TWO questions about the text that your teacher would ask you in a test.

________________________________________

________________________________________

________________________________________

________________________________________

What do you ask yourself while you are reading?

________________________________________

________________________________________

Describe the story in ONE sentence. Use your own words.

________________________________________

________________________________________

________________________________________
Addendum G – Strategy Transfer Test

Comprehension test

One day, Luther and his parents were out in their car. They were hit by a truck that was following them. Luther was in the hospital for a long time. His legs were badly fractured.

When Luther came home from the hospital, there was a big surprise waiting for him in his room. There, across from his table where he did his drawing was a brand new computer. Soon, Luther didn’t miss playing basketball at all. He would draw and read and use his computer at home. His mother showed him how to use the Internet to make new friends around the world.

Every day, Luther logged onto the Internet. He wrote e-mails to people all around the world. They traded stories about families, school and friends. But most of all, many of Luther’s new computer friends wanted to know about his art. He was happy to scan his drawings into the computer and e-mail them to his friends across the other side of the world. Other people that Luther didn’t even know asked him to send them his drawings too.

One night, at dinner, Luther was telling his mother and father about the people who asked him for his drawings over the Internet. “If people like your drawings so much, maybe you should start up a business on the Internet”, said Luther’s dad.

“You could put your drawings up for sale” said his mother.

“Wow”, said Luther, “that would be really good. Just think, I could show my drawings around the world and get paid for them!”

When Luther told his art teacher at school about starting a business, he said “The sky’s the limit, Luther.”
Strategy Transfer Test questions

1. Underline all the words in the text that you don’t understand.

2. Is this text fiction or non-fiction?

3. What would be a good title for this story?

4. Write down THREE questions about the story that your teacher would ask you.

5. Summarise paragraph 3 in your own words. See if you can do this in 15 words or less!

6. What must you always ask yourself while you are reading?
Addendum H – Samples of Learners’ Work

Sample learners’ summarisation of Text 3 (refer Addendum M3)

1. It was Christopher birthday party. All his friends was there. Christopher’s dad had a surprise. All Christopher’s friends had to guess what it was. The surprise was a dog. The boy was happy.

2. Christopher had a birthday party.
   He got a present from his dad and his friends must guess what is it.
   It was a dog.

3. Christopher had a birthday party. Mr. Nixon had a surprise for him and everyone take a guess. Sophie gave all the answers. It was a puppy.

4. Christopher had a birthday party. Mr. Nixon bought a present but nobody could guess what it was. Christopher’s birthday present was a puppy.
Sample of learners’ questioning for Text 2 & Text 3 (refer Addendums Q2 & Q3)

Create your own Questions

Paragraph 1

Right There

1. Who became ill?
2. What kind of bowl shattered into small pieces?
3. Who could not look after the little girl?

Think and Search

1. Why did they give the old lady a wooden bowl?
2. What was so special?

1) Give the story a title: The mystery present
2) Write 4 Right There Questions
   What colour was the ribbon?
   What kind of dog was it?
   Who solved the mystery?
   Who asked the first clue?
3) Write 2 Think and Search Questions
   Was the puppy a male or a female?
   Who was Mr. Nixon?
4) Write 1 On my own Question
   Where did they buy the present.
Addendum I – WCED Permission for Research

Dear Ms N. Klapwijk

RESEARCH PROPOSAL: READING STRATEGY INSTRUCTION FOR GRADES 4 – 6: TOWARDS A FRAMEWORK FOR IMPLEMENTATION.

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educators’ programmes are not to be interrupted.
5. The Study is to be conducted from 30th April 2009 to 30th September 2009.
6. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December).
7. Should you wish to extend the period of your survey, please contact Dr R. Cornelissen at the contact numbers above quoting the reference number.
8. A photocopy of this letter is submitted to the principal where the intended research is to be conducted.
9. Your research will be limited to the list of schools as forwarded to the Western Cape Education Department.
10. A brief summary of the content, findings and recommendations is provided to the Director: Research Services.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:

   The Director: Research Services
   Western Cape Education Department
   Private Bag X9114
   CAPE TOWN
   8000

We wish you success in your research.

Kind regards.

Signed: Ronald S. Cornelissen
for: HEAD: EDUCATION
DATE: 29th April 2009
Addendum J – Stellenbosch University Ethical Clearance for Research

Tel.: 021 - 808-2887
Enquiries: Sidney Engelbrecht
Email: sidney@sun.ac.za

Ms N Klapwijk
Department of Curriculum Studies
University of Stellenbosch
STELLENBOSCH
7602

Dear Ms N Klapwijk

APPLICATION FOR ETHICAL CLEARANCE

With regards to your application, I would like to inform you that the project, Reading strategy instruction for grades 4 – 6: towards a framework for implementation, has been approved on condition that:

1. The researcher/s remain within the procedures and protocols indicated in the proposal;
2. The researcher/s stay within the boundaries of applicable national legislation, institutional guidelines, and applicable standards of scientific rigor that are followed within this field of study and that
3. Any substantive changes to this research project should be brought to the attention of the Ethics Committee with a view to obtain ethical clearance for it.

We wish you success with your research activities.

Best regards

MS. M. HUNTER-HÜSSELMANN
Co-ordinator: Research (Human and Social Sciences)

Afdeling Navorsingsontwikkeling • Division of Research Development
Privaat Sak/Private Bag XI • 7602 Stellenbosch • 7600 South Africa
Tel +27 21 808 9111 • Fax/Fax +27 21 808 4537
Addendum K – Informed Consent form for teachers

STELLENBOSCH UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

Consent form for teachers

Reading strategy instruction for grades 4-6: towards a framework for implementation.

You have been selected to participate in a research study conducted by Nanda Klapwijk (MPhil) from Stellenbosch University. The results of the research will contribute to a PhD dissertation. You were selected as a possible participant in this study because your school provides instruction in a language that is not always all learners’ first (home) language (this is a requirement for the research).

1. PURPOSE OF THE STUDY

The purpose of the study is to establish a framework for implementing reading strategy instruction in grades 4 – 6. The study is linked to objectives in the Department of Education’s National Reading Strategy (2008).

2. PROCEDURES

If you volunteer to participate in this study, we would ask you to complete a questionnaire. The questionnaire is solely for obtaining information for part of the study. The questionnaire results will only be available to the researcher for research purposes. The questionnaire will be administered by the researcher directly to teachers after obtaining permission from the school principal.

3. POTENTIAL RISKS AND DISCOMFORTS

This study does not entail any risks, discomforts or inconveniences. The questionnaire is conducted anonymously and requires no details which can be linked to individuals or schools.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

The potential benefit(s) of the research for teachers are as follows:

- Learning about and implementing reading strategies as part of their reading instruction.

5. PAYMENT FOR PARTICIPATION

No payment will be made for participation in this study.

6. CONFIDENTIALITY

Any information that is obtained in connection with this questionnaire will remain confidential and only be available to the researcher. Confidentiality will be maintained by storing all information in a secure place, whether in hard-copy or electronic format. In the final dissertation and any report intended for publication, generic descriptors for persons (teachers) and organizations (schools) will be used to ensure anonymity. The researcher and her direct supervisor are the only persons...
who will have access to all information. Information will not be released to any party unless they have a legal right to it.

7. PARTICIPATION AND WITHDRAWAL

You can choose whether to participate in this study or not. If you agree to participate in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don’t want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Nanda Klapwijk (the researcher) by phone at (021) 531-4766 or 0824611410, or via email at nklapwijk@iafrica.com. Alternatively her supervisors, Prof C van der Walt or Dr R Nathanson, can be contacted at (021) 808-2284 or (021) 808-2282 respectively.

9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue your participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Marlene Fouche (mfouche@sun.ac.za; 021-808 4622) at the Unit for Research Development.
I declare that I understand the information described above, and have been given the opportunity to question the researcher and/or principal about the information described above in the language of my choice (Afrikaans & English). Any questions that I had have been answered to my satisfaction.

I hereby consent to participate in this study. I have been given a copy of this form.

____________________________________________
Name of Subject/Participant

________________________________________
Name of Legal Representative (if applicable)

________________________________________  ______________
Signature of Subject/Participant or Legal Representative  Date

SIGNATURE OF INVESTIGATOR

I declare that I gave the participants the opportunity and time to ask me any questions pertaining to this study. I also explained the information in this document to the school principal. He was encouraged and given ample time to ask me any questions. This conversation was conducted in Afrikaans and no translator was used.

________________________________________  ______________
Signature of Investigator  Date
Addendum L – Informed Consent Form for learners

STELLENBOSCH UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

Consent form for learners

Reading strategy instruction for grades 4-6: towards a framework for implementation.

Your child has been selected to participate in a research study conducted by Nanda Klapwijk (MPhil) through Stellenbosch University. This study has been approved by the Western Cape Education Department and your child’s school. The results of the research will contribute to a PhD dissertation. Your child was selected as a possible participant in this study because your school provides instruction in a language that is not always all learners’ first (home) language (this is a requirement for the research).

1. PURPOSE OF THE STUDY

The purpose of the study is to establish a framework for implementing reading strategy instruction in grades 4 – 6. The study is linked to objectives in the Department of Education’s National Reading Strategy (2008).

2. PROCEDURES

If your child volunteers to participate in this study, we would ask him/her to write a standard word test, a comprehension test and a short reading test. The tests are solely for obtaining information for the study. The test results will not form part of the child’s school record in any way and will only be available to the researcher for research purposes. The tests will be administered by the researcher, who is also a former primary school teacher. All tests will take place at the child’s school. Each test will be administered twice: once before the start of the research to obtain baseline data, and once upon completion of the research.

3. POTENTIAL RISKS AND DISCOMFORTS

This study does not entail any risks, discomforts or inconveniences. All tests are similar to reading and writing tasks performed in schools every day. All observation visits and interactions with learners will be done by prior appointment with and permission from the school principal. There will be no disruption of normal class activities.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

The potential benefits of the research for learners are as follows:

• Acquiring knowledge of a variety of reading strategies for improving reading comprehension
• Use of reading strategies in reading and learning
• The potential for improving their overall reading comprehension.

5. PAYMENT FOR PARTICIPATION

No payment will be made for participation in this study.
6. **CONFIDENTIALITY**

Any information that is obtained in connection with this study will remain confidential and only be available to the researcher. Confidentiality will be maintained by storing all information in a secure place, whether in hard-copy or electronic format. In the final dissertation and any report intended for publication, generic descriptors for persons (teachers & learners) and organizations (schools) will be used to ensure anonymity. The researcher and her direct supervisor are the only persons who will have access to all information. Information will not be released to any party unless they have a legal right to it.

7. **PARTICIPATION AND WITHDRAWAL**

You can choose whether your child participates in this study or not. If you agree to your child’s participation in this study, you may withdraw your child at any time without consequences of any kind. Your child may also refuse to answer any questions they don’t want to answer and still remain in the study. The investigator may withdraw your child from this research if circumstances arise which warrant doing so.

8. **IDENTIFICATION OF INVESTIGATORS**

If you have any questions or concerns about the research, please feel free to contact Nanda Klapwijk (the researcher) by phone at (021) 531-4766 or 0824611410, or via email at nklapwijk@iafrica.com. Alternatively her supervisors, Prof C van der Walt or Dr R Nathanson, can be contacted at (021) 808-2284 or (021) 808-2282 respectively.

9. ** RIGHTS OF RESEARCH SUBJECTS**

You may withdraw your consent at any time and discontinue your child’s participation without penalty. You are not waiving any legal claims, rights or remedies because of your child’s participation in this research study. If you have questions regarding your child’s rights as a research subject, contact Maryke Hunter-Hüsselmann (mh3@sun.ac.za; 021-808 4623) at the Unit for Research Development.
I declare that I understand the information described above, and have been given the opportunity to question the researcher and/or principal about the information described above in the language of my choice (Afrikaans, English or Xhosa). Any questions that I had have been answered to my satisfaction.

I hereby consent to my child’s participation in this study. I have been given a copy of this form.

________________________________________
Name of Child (Subject/Participant)

Name of Legal Representative (Parent/Guardian)

________________________________________
Signature of Legal Representative (Parent/Guardian)  Date

I declare that I gave the participant’s parent/guardian the opportunity and time to ask me any questions pertaining to this study. I also explained the information in this document to _______________________ [school principal]. He was encouraged and given ample time to ask me any questions. This conversation was conducted in Afrikaans and English and no translator was used.

________________________________________
Signature of Investigator  Date
### Addendum M – Real Age & Burt Age results (ANOVA)

<table>
<thead>
<tr>
<th>Effect</th>
<th>Level of factor</th>
<th>Level of factor</th>
<th>N</th>
<th>Score mean</th>
<th>Score Std Dev</th>
<th>Score Std Error</th>
<th>Score 95.00%</th>
<th>Score +95.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>283</td>
<td>10.18622</td>
<td>2.17222</td>
<td>0.129125</td>
<td>9.392</td>
<td>10.44039</td>
</tr>
<tr>
<td>Group</td>
<td>4</td>
<td></td>
<td>88</td>
<td>9.27193</td>
<td>1.737082</td>
<td>0.185174</td>
<td>8.9039</td>
<td>9.63998</td>
</tr>
<tr>
<td>Group</td>
<td>5C</td>
<td></td>
<td>70</td>
<td>10.07114</td>
<td>2.750398</td>
<td>0.328735</td>
<td>9.4153</td>
<td>10.72695</td>
</tr>
<tr>
<td>Group</td>
<td>5E</td>
<td></td>
<td>62</td>
<td>10.15452</td>
<td>1.784863</td>
<td>0.226678</td>
<td>9.7012</td>
<td>10.60779</td>
</tr>
<tr>
<td>Group</td>
<td>6</td>
<td></td>
<td>63</td>
<td>11.62238</td>
<td>1.541507</td>
<td>0.194212</td>
<td>11.2342</td>
<td>12.0106</td>
</tr>
<tr>
<td>Age</td>
<td>Real</td>
<td></td>
<td>144</td>
<td>11.03472</td>
<td>1.70069</td>
<td>0.141724</td>
<td>10.7546</td>
<td>11.31487</td>
</tr>
<tr>
<td>Age</td>
<td>Burt</td>
<td></td>
<td>139</td>
<td>9.30719</td>
<td>2.261762</td>
<td>0.19184</td>
<td>8.9279</td>
<td>9.68562</td>
</tr>
<tr>
<td>Group*Age</td>
<td>4</td>
<td>Real</td>
<td>46</td>
<td>10.08</td>
<td>0.630439</td>
<td>0.092953</td>
<td>9.8928</td>
<td>10.26722</td>
</tr>
<tr>
<td>Group*Age</td>
<td>4</td>
<td>Burt</td>
<td>42</td>
<td>8.3869</td>
<td>2.105156</td>
<td>0.324833</td>
<td>7.7309</td>
<td>9.04292</td>
</tr>
<tr>
<td>Group*Age</td>
<td>5C</td>
<td>Real</td>
<td>35</td>
<td>10.87029</td>
<td>2.8142</td>
<td>0.475687</td>
<td>9.9036</td>
<td>11.837</td>
</tr>
<tr>
<td>Group*Age</td>
<td>5C</td>
<td>Burt</td>
<td>35</td>
<td>9.272</td>
<td>2.473323</td>
<td>0.418068</td>
<td>8.4224</td>
<td>10.12162</td>
</tr>
<tr>
<td>Group*Age</td>
<td>5E</td>
<td>Real</td>
<td>31</td>
<td>11.33</td>
<td>0.774756</td>
<td>0.13915</td>
<td>11.0458</td>
<td>11.61418</td>
</tr>
<tr>
<td>Group*Age</td>
<td>5E</td>
<td>Burt</td>
<td>31</td>
<td>8.97903</td>
<td>1.738326</td>
<td>0.312212</td>
<td>8.3414</td>
<td>9.61666</td>
</tr>
<tr>
<td>Group*Age</td>
<td>6</td>
<td>Real</td>
<td>32</td>
<td>12.30094</td>
<td>0.610628</td>
<td>0.107945</td>
<td>12.0808</td>
<td>12.52109</td>
</tr>
<tr>
<td>Group*Age</td>
<td>6</td>
<td>Burt</td>
<td>31</td>
<td>10.92194</td>
<td>1.878163</td>
<td>0.337328</td>
<td>10.233</td>
<td>11.61085</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>10.875</td>
<td>1.350574</td>
<td>0.955</td>
<td>-1.2594</td>
<td>23.00943</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>9</td>
<td>1.65463</td>
<td>1.17</td>
<td>-5.8663</td>
<td>23.86626</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>8.125</td>
<td>1.831407</td>
<td>1.295</td>
<td>-8.3295</td>
<td>24.57954</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>8.79</td>
<td>0.650538</td>
<td>0.46</td>
<td>2.9451</td>
<td>14.63485</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>8.46</td>
<td>1.824335</td>
<td>1.29</td>
<td>-7.931</td>
<td>24.851</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>7.54</td>
<td>3.592102</td>
<td>2.54</td>
<td>-24.7338</td>
<td>39.81376</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>9</td>
<td>4</td>
<td>2</td>
<td>8.085</td>
<td>4.362849</td>
<td>3.083</td>
<td>-31.1136</td>
<td>47.28364</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>10</td>
<td>4</td>
<td>2</td>
<td>8.415</td>
<td>2.241528</td>
<td>1.583</td>
<td>-11.7243</td>
<td>28.55433</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>12</td>
<td>4</td>
<td>2</td>
<td>10.21</td>
<td>0.296985</td>
<td>0.21</td>
<td>7.5417</td>
<td>12.8783</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>13</td>
<td>4</td>
<td>2</td>
<td>11.085</td>
<td>1.294005</td>
<td>0.915</td>
<td>-0.5412</td>
<td>22.71118</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>14</td>
<td>4</td>
<td>2</td>
<td>9.96</td>
<td>0.056569</td>
<td>0.04</td>
<td>9.4518</td>
<td>10.46825</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>15</td>
<td>4</td>
<td>2</td>
<td>9.5</td>
<td>0.707107</td>
<td>0.5</td>
<td>3.1469</td>
<td>15.8531</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>16</td>
<td>4</td>
<td>2</td>
<td>9.58</td>
<td>1.06066</td>
<td>0.75</td>
<td>0.0503</td>
<td>19.10965</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>17</td>
<td>4</td>
<td>2</td>
<td>7.585</td>
<td>3.655742</td>
<td>2.585</td>
<td>-25.2605</td>
<td>40.43054</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>18</td>
<td>4</td>
<td>2</td>
<td>8.46</td>
<td>2.177889</td>
<td>1.54</td>
<td>-11.1076</td>
<td>28.02756</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>19</td>
<td>4</td>
<td>2</td>
<td>10.335</td>
<td>0.827315</td>
<td>0.583</td>
<td>2.9019</td>
<td>17.76813</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>20</td>
<td>4</td>
<td>2</td>
<td>8.29</td>
<td>2.177889</td>
<td>1.54</td>
<td>-11.2776</td>
<td>27.85756</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>21</td>
<td>4</td>
<td>2</td>
<td>10.125</td>
<td>0.997021</td>
<td>0.705</td>
<td>1.1671</td>
<td>19.08287</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>22</td>
<td>4</td>
<td>1</td>
<td>10.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>23</td>
<td>4</td>
<td>2</td>
<td>7.828427</td>
<td>2</td>
<td>-18.4124</td>
<td>32.41241</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>24</td>
<td>4</td>
<td>2</td>
<td>8.455</td>
<td>2.298097</td>
<td>1.625</td>
<td>-12.1926</td>
<td>29.10258</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>25</td>
<td>4</td>
<td>2</td>
<td>10.045</td>
<td>1.237437</td>
<td>0.875</td>
<td>-1.0729</td>
<td>21.16293</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>26</td>
<td>4</td>
<td>2</td>
<td>10.75</td>
<td>1.173797</td>
<td>0.83</td>
<td>0.2039</td>
<td>21.29615</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>27</td>
<td>4</td>
<td>2</td>
<td>8.71</td>
<td>2.177889</td>
<td>1.54</td>
<td>-10.8576</td>
<td>28.27756</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>28</td>
<td>4</td>
<td>2</td>
<td>9.04</td>
<td>0.296985</td>
<td>0.21</td>
<td>6.3717</td>
<td>11.7083</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>29</td>
<td>4</td>
<td>2</td>
<td>8.875</td>
<td>1.237437</td>
<td>0.875</td>
<td>-2.2429</td>
<td>19.99293</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>30</td>
<td>4</td>
<td>1</td>
<td>12.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>31</td>
<td>4</td>
<td>2</td>
<td>8.5</td>
<td>2.234457</td>
<td>1.58</td>
<td>-11.5758</td>
<td>28.5758</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>32</td>
<td>4</td>
<td>2</td>
<td>10.835</td>
<td>1.294005</td>
<td>0.915</td>
<td>-0.7912</td>
<td>22.46118</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>33</td>
<td>4</td>
<td>2</td>
<td>10.415</td>
<td>0.120208</td>
<td>0.085</td>
<td>9.335</td>
<td>11.49503</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>34</td>
<td>4</td>
<td>2</td>
<td>9.085</td>
<td>2.241528</td>
<td>1.585</td>
<td>-11.0543</td>
<td>29.22433</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>35</td>
<td>4</td>
<td>2</td>
<td>8.455</td>
<td>1.237437</td>
<td>0.875</td>
<td>-2.6629</td>
<td>19.57293</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>36</td>
<td>4</td>
<td>1</td>
<td>10.58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>37</td>
<td>4</td>
<td>2</td>
<td>9.375</td>
<td>2.18496</td>
<td>1.545</td>
<td>-10.2561</td>
<td>29.00609</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>38</td>
<td>4</td>
<td>2</td>
<td>9.96</td>
<td>0.056569</td>
<td>0.04</td>
<td>9.4518</td>
<td>10.46825</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>39</td>
<td>4</td>
<td>2</td>
<td>10</td>
<td>0.113137</td>
<td>0.08</td>
<td>8.9835</td>
<td>11.0165</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>40</td>
<td>4</td>
<td>2</td>
<td>9.21</td>
<td>3.478965</td>
<td>2.46</td>
<td>-22.0473</td>
<td>40.46726</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>41</td>
<td>4</td>
<td>2</td>
<td>11.46</td>
<td>0.763675</td>
<td>0.54</td>
<td>4.5986</td>
<td>18.32135</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>42</td>
<td>4</td>
<td>2</td>
<td>9.085</td>
<td>2.241528</td>
<td>1.585</td>
<td>-11.0543</td>
<td>29.22433</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>43</td>
<td>4</td>
<td>1</td>
<td>10.58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>44</td>
<td>4</td>
<td>2</td>
<td>9.795</td>
<td>0.176777</td>
<td>0.125</td>
<td>8.2067</td>
<td>11.38328</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>45</td>
<td>4</td>
<td>2</td>
<td>9.54</td>
<td>0.056569</td>
<td>0.04</td>
<td>9.0318</td>
<td>10.04825</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>46</td>
<td>4</td>
<td>2</td>
<td>8.875</td>
<td>1.350574</td>
<td>0.955</td>
<td>-3.2594</td>
<td>21.00943</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>47</td>
<td>4</td>
<td>2</td>
<td>8.71</td>
<td>2.177889</td>
<td>1.54</td>
<td>-10.8576</td>
<td>28.27756</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>48</td>
<td>4</td>
<td>2</td>
<td>8.21</td>
<td>1.711198</td>
<td>1.21</td>
<td>-7.1645</td>
<td>23.58451</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>49</td>
<td>4</td>
<td>2</td>
<td>7.125</td>
<td>3.005204</td>
<td>2.125</td>
<td>-19.8757</td>
<td>34.12569</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>50</td>
<td>5E</td>
<td>2</td>
<td>9.415</td>
<td>3.061772</td>
<td>2.165</td>
<td>-18.0939</td>
<td>36.92393</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>51</td>
<td>5E</td>
<td>2</td>
<td>11.04</td>
<td>0.410122</td>
<td>0.29</td>
<td>7.3552</td>
<td>14.7248</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>52</td>
<td>5E</td>
<td>2</td>
<td>9.5</td>
<td>1.767767</td>
<td>1.25</td>
<td>-6.3828</td>
<td>25.38276</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>53</td>
<td>5E</td>
<td>2</td>
<td>9.79</td>
<td>3.125412</td>
<td>2.21</td>
<td>-18.2907</td>
<td>37.87071</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>54</td>
<td>5E</td>
<td>2</td>
<td>9.545</td>
<td>4.065864</td>
<td>2.875</td>
<td>-26.9853</td>
<td>46.07534</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>55</td>
<td>5E</td>
<td>2</td>
<td>11.165</td>
<td>0.586899</td>
<td>0.415</td>
<td>5.8919</td>
<td>16.43807</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>56</td>
<td>5E</td>
<td>2</td>
<td>10.205</td>
<td>4.419417</td>
<td>3.125</td>
<td>-29.5019</td>
<td>49.91189</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>57</td>
<td>5E</td>
<td>2</td>
<td>10.17</td>
<td></td>
<td>0</td>
<td>0</td>
<td>10.17</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>58</td>
<td>5E</td>
<td>2</td>
<td>10.835</td>
<td>0.120208</td>
<td>0.085</td>
<td>9.755</td>
<td>11.91503</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>59</td>
<td>5E</td>
<td>2</td>
<td>10.375</td>
<td>0.643467</td>
<td>0.455</td>
<td>4.5937</td>
<td>16.15632</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>60</td>
<td>5E</td>
<td>2</td>
<td>10.835</td>
<td>0.120208</td>
<td>0.085</td>
<td>9.755</td>
<td>11.91503</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>61</td>
<td>5E</td>
<td>2</td>
<td>10.665</td>
<td>2.001112</td>
<td>1.415</td>
<td>-7.3143</td>
<td>28.64428</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>62</td>
<td>5E</td>
<td>2</td>
<td>10.875</td>
<td>0.06364</td>
<td>0.045</td>
<td>10.3032</td>
<td>11.44678</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>63</td>
<td>5E</td>
<td>2</td>
<td>10</td>
<td>1.527351</td>
<td>1.08</td>
<td>-3.7227</td>
<td>23.7227</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>64</td>
<td>5E</td>
<td>2</td>
<td>10.125</td>
<td>1.350574</td>
<td>0.955</td>
<td>-2.0094</td>
<td>22.25943</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>65</td>
<td>5E</td>
<td>2</td>
<td>9.75</td>
<td>1.880904</td>
<td>1.33</td>
<td>-7.1493</td>
<td>26.64925</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>66</td>
<td>5E</td>
<td>2</td>
<td>10.165</td>
<td>0.233345</td>
<td>0.165</td>
<td>8.0685</td>
<td>12.26152</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>67</td>
<td>5E</td>
<td>2</td>
<td>8.67</td>
<td>2.12132</td>
<td>1.5</td>
<td>-10.3893</td>
<td>27.72931</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>68</td>
<td>5E</td>
<td>2</td>
<td>10.96</td>
<td>1.357645</td>
<td>0.96</td>
<td>-1.238</td>
<td>23.15796</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>69</td>
<td>5E</td>
<td>2</td>
<td>9.455</td>
<td>3.358757</td>
<td>2.375</td>
<td>-20.7222</td>
<td>39.63224</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>70</td>
<td>5E</td>
<td>2</td>
<td>10.5</td>
<td>0.240416</td>
<td>0.17</td>
<td>8.3399</td>
<td>12.66005</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>71</td>
<td>5E</td>
<td>2</td>
<td>8.96</td>
<td>4.186072</td>
<td>2.96</td>
<td>-28.6504</td>
<td>46.57037</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>72</td>
<td>5E</td>
<td>2</td>
<td>9.585</td>
<td>2.001112</td>
<td>1.415</td>
<td>-8.3943</td>
<td>27.56428</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>73</td>
<td>5E</td>
<td>2</td>
<td>9.915</td>
<td>3.302189</td>
<td>2.335</td>
<td>-19.754</td>
<td>39.58399</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>74</td>
<td>5E</td>
<td>2</td>
<td>9.33</td>
<td>3.889087</td>
<td>2.75</td>
<td>-25.6121</td>
<td>44.27206</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>75</td>
<td>5E</td>
<td>2</td>
<td>9.75</td>
<td>3.535534</td>
<td>2.5</td>
<td>-22.0155</td>
<td>41.51551</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>77</td>
<td>5E</td>
<td>2</td>
<td>11.165</td>
<td>0.473762</td>
<td>0.335</td>
<td>6.9084</td>
<td>15.42158</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>78</td>
<td>5E</td>
<td>2</td>
<td>10.71</td>
<td>0.410122</td>
<td>0.29</td>
<td>7.0252</td>
<td>14.3948</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>79</td>
<td>5E</td>
<td>2</td>
<td>10.5</td>
<td>0.947523</td>
<td>0.67</td>
<td>1.9868</td>
<td>19.01316</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>80</td>
<td>5E</td>
<td>2</td>
<td>11.21</td>
<td>1.117229</td>
<td>0.79</td>
<td>1.1721</td>
<td>21.2479</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>81</td>
<td>5E</td>
<td>2</td>
<td>9.625</td>
<td>3.825448</td>
<td>2.705</td>
<td>-24.7453</td>
<td>43.99528</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>83</td>
<td>5C</td>
<td>2</td>
<td>11.21</td>
<td>1.824335</td>
<td>1.29</td>
<td>-5.181</td>
<td>27.601</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>84</td>
<td>5C</td>
<td>2</td>
<td>4.085</td>
<td>5.777062</td>
<td>4.085</td>
<td>-47.8198</td>
<td>55.98985</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>C</td>
<td>2</td>
<td>9.125</td>
<td>2.892067</td>
<td>2.045</td>
<td>-16.8592</td>
<td>35.10919</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>---</td>
<td>---</td>
<td>--------</td>
<td>----------</td>
<td>--------</td>
<td>----------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>85</td>
<td>C</td>
<td>2</td>
<td>9.58</td>
<td>3.535534</td>
<td>2.5</td>
<td>-22.1855</td>
<td>41.34551</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>86</td>
<td>C</td>
<td>2</td>
<td>11.54</td>
<td>0.763675</td>
<td>0.54</td>
<td>4.6786</td>
<td>18.40135</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>88</td>
<td>C</td>
<td>2</td>
<td>11.125</td>
<td>0.997021</td>
<td>0.705</td>
<td>2.1671</td>
<td>20.08287</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>89</td>
<td>C</td>
<td>2</td>
<td>10.96</td>
<td>0.296985</td>
<td>0.21</td>
<td>8.2917</td>
<td>13.6283</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>91</td>
<td>C</td>
<td>2</td>
<td>10.96</td>
<td>1.357645</td>
<td>0.96</td>
<td>-1.238</td>
<td>23.15796</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>92</td>
<td>C</td>
<td>2</td>
<td>10.875</td>
<td>0.417193</td>
<td>0.295</td>
<td>7.1267</td>
<td>14.62333</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>93</td>
<td>C</td>
<td>2</td>
<td>10.835</td>
<td>0.586899</td>
<td>0.415</td>
<td>5.5619</td>
<td>16.10807</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>94</td>
<td>C</td>
<td>2</td>
<td>10.79</td>
<td>0.650538</td>
<td>0.46</td>
<td>4.9451</td>
<td>16.63485</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>95</td>
<td>C</td>
<td>2</td>
<td>10.085</td>
<td>2.595082</td>
<td>1.835</td>
<td>-13.2309</td>
<td>33.40089</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>96</td>
<td>C</td>
<td>2</td>
<td>11.25</td>
<td>0.707107</td>
<td>0.5</td>
<td>4.8969</td>
<td>17.6031</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>97</td>
<td>C</td>
<td>2</td>
<td>11</td>
<td>0.240416</td>
<td>0.17</td>
<td>8.8399</td>
<td>13.16005</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>98</td>
<td>C</td>
<td>2</td>
<td>10.17</td>
<td>0.353553</td>
<td>0.25</td>
<td>6.9934</td>
<td>13.34655</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>99</td>
<td>C</td>
<td>2</td>
<td>12.17</td>
<td>0.353553</td>
<td>0.25</td>
<td>8.9934</td>
<td>15.34655</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>100</td>
<td>C</td>
<td>2</td>
<td>11.335</td>
<td>0.940452</td>
<td>0.665</td>
<td>2.8854</td>
<td>19.78463</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>101</td>
<td>C</td>
<td>2</td>
<td>11.545</td>
<td>1.59099</td>
<td>1.125</td>
<td>-2.7495</td>
<td>25.83948</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>102</td>
<td>C</td>
<td>2</td>
<td>10.79</td>
<td>0.296985</td>
<td>0.21</td>
<td>8.1217</td>
<td>13.4583</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>103</td>
<td>C</td>
<td>2</td>
<td>10.42</td>
<td>2.828427</td>
<td>2</td>
<td>-14.9924</td>
<td>35.83241</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>104</td>
<td>C</td>
<td>2</td>
<td>11.835</td>
<td>1.647559</td>
<td>1.165</td>
<td>-2.9677</td>
<td>26.63773</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>105</td>
<td>C</td>
<td>2</td>
<td>10.125</td>
<td>1.59099</td>
<td>1.125</td>
<td>-4.1695</td>
<td>24.41948</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>106</td>
<td>C</td>
<td>2</td>
<td>10.17</td>
<td>0.353553</td>
<td>0.25</td>
<td>6.9934</td>
<td>13.34655</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>107</td>
<td>C</td>
<td>2</td>
<td>9.75</td>
<td>4.129504</td>
<td>2.92</td>
<td>-27.3521</td>
<td>46.85212</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>108</td>
<td>C</td>
<td>2</td>
<td>10.625</td>
<td>0.176777</td>
<td>0.125</td>
<td>9.0367</td>
<td>12.21328</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>109</td>
<td>C</td>
<td>2</td>
<td>10.795</td>
<td>2.65165</td>
<td>1.875</td>
<td>-13.0291</td>
<td>34.61913</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>110</td>
<td>C</td>
<td>2</td>
<td>11.335</td>
<td>0.473762</td>
<td>0.335</td>
<td>7.0784</td>
<td>15.59158</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>111</td>
<td>C</td>
<td>2</td>
<td>9.58</td>
<td>3.535534</td>
<td>2.5</td>
<td>-22.1855</td>
<td>41.34551</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>112</td>
<td>C</td>
<td>2</td>
<td>9.46</td>
<td>2.531442</td>
<td>1.79</td>
<td>-13.2841</td>
<td>32.20411</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>113</td>
<td>C</td>
<td>2</td>
<td>9.5</td>
<td>3.889087</td>
<td>2.75</td>
<td>-25.4421</td>
<td>44.44206</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>114</td>
<td>C</td>
<td>2</td>
<td>9.71</td>
<td>3.945656</td>
<td>2.79</td>
<td>-25.7403</td>
<td>45.16031</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>115</td>
<td>C</td>
<td>2</td>
<td>10.835</td>
<td>0.120208</td>
<td>0.085</td>
<td>9.755</td>
<td>11.91503</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>116</td>
<td>C</td>
<td>2</td>
<td>10.42</td>
<td>0.353553</td>
<td>0.25</td>
<td>7.2434</td>
<td>13.59655</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>119</td>
<td>2</td>
<td>10.085</td>
<td>2.708219</td>
<td>1.915</td>
<td>-14.2474</td>
<td>34.41738</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>120</td>
<td>2</td>
<td>11.58</td>
<td>0.353553</td>
<td>0.25</td>
<td>8.4034</td>
<td>14.75655</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>121</td>
<td>2</td>
<td>10.125</td>
<td>2.18496</td>
<td>1.545</td>
<td>-9.5061</td>
<td>29.75609</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>123</td>
<td>2</td>
<td>12.625</td>
<td>0.53033</td>
<td>0.375</td>
<td>7.8602</td>
<td>17.38983</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>125</td>
<td>2</td>
<td>12.165</td>
<td>1.294005</td>
<td>0.915</td>
<td>0.5388</td>
<td>23.79118</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>126</td>
<td>2</td>
<td>11.75</td>
<td>0.113137</td>
<td>0.08</td>
<td>10.7335</td>
<td>12.7665</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>127</td>
<td>2</td>
<td>12.75</td>
<td>13.125</td>
<td>0.176777</td>
<td>0.125</td>
<td>11.5367</td>
<td>14.71328</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>130</td>
<td>2</td>
<td>10.625</td>
<td>2.057681</td>
<td>1.455</td>
<td>-7.8625</td>
<td>29.11253</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>131</td>
<td>2</td>
<td>10.29</td>
<td>4.299209</td>
<td>3.04</td>
<td>-28.3369</td>
<td>48.91686</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>132</td>
<td>2</td>
<td>11.455</td>
<td>1.237437</td>
<td>0.875</td>
<td>0.3371</td>
<td>22.57293</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>133</td>
<td>2</td>
<td>12.415</td>
<td>0.827315</td>
<td>0.585</td>
<td>4.9819</td>
<td>19.84813</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>134</td>
<td>2</td>
<td>12.375</td>
<td>0.883883</td>
<td>0.625</td>
<td>4.4336</td>
<td>20.31638</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>136</td>
<td>2</td>
<td>11.875</td>
<td>0.176777</td>
<td>0.125</td>
<td>10.2867</td>
<td>13.46328</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>137</td>
<td>2</td>
<td>12.46</td>
<td>0.763675</td>
<td>0.54</td>
<td>5.5986</td>
<td>19.32135</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>138</td>
<td>2</td>
<td>10.5</td>
<td>4.002224</td>
<td>2.83</td>
<td>-25.4586</td>
<td>46.45856</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>139</td>
<td>2</td>
<td>12.5</td>
<td>0.707107</td>
<td>0.5</td>
<td>6.1469</td>
<td>18.8531</td>
<td></td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>140</td>
<td>6</td>
<td>2</td>
<td>11.83</td>
<td>0.353553</td>
<td>0.25</td>
<td>8.6534</td>
<td>15.00655</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>141</td>
<td>6</td>
<td>2</td>
<td>12.165</td>
<td>0.233345</td>
<td>0.165</td>
<td>10.0685</td>
<td>14.26152</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>143</td>
<td>6</td>
<td>2</td>
<td>11.92</td>
<td>0.353553</td>
<td>0.25</td>
<td>8.7434</td>
<td>15.09655</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>145</td>
<td>6</td>
<td>2</td>
<td>10.625</td>
<td>2.18496</td>
<td>1.545</td>
<td>-9.0061</td>
<td>30.25609</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>146</td>
<td>6</td>
<td>2</td>
<td>11.29</td>
<td>0.410122</td>
<td>0.29</td>
<td>7.6052</td>
<td>14.9748</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>147</td>
<td>6</td>
<td>2</td>
<td>10.5</td>
<td>2.234457</td>
<td>1.58</td>
<td>-9.5758</td>
<td>30.5758</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>148</td>
<td>6</td>
<td>2</td>
<td>13.375</td>
<td>0.53033</td>
<td>0.375</td>
<td>8.6102</td>
<td>18.13983</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>150</td>
<td>6</td>
<td>2</td>
<td>12.375</td>
<td>0.883883</td>
<td>0.625</td>
<td>4.4336</td>
<td>20.31638</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>152</td>
<td>6</td>
<td>2</td>
<td>12.08</td>
<td>0.707107</td>
<td>0.5</td>
<td>5.7269</td>
<td>18.4331</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>153</td>
<td>6</td>
<td>2</td>
<td>11.33</td>
<td>1.06066</td>
<td>0.75</td>
<td>1.8003</td>
<td>20.85965</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>154</td>
<td>6</td>
<td>2</td>
<td>11.875</td>
<td>1.350574</td>
<td>0.955</td>
<td>-0.2594</td>
<td>24.00943</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>156</td>
<td>6</td>
<td>2</td>
<td>10.125</td>
<td>4.532554</td>
<td>3.205</td>
<td>-30.5984</td>
<td>50.84839</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>158</td>
<td>6</td>
<td>2</td>
<td>11.085</td>
<td>0.827315</td>
<td>0.585</td>
<td>3.6519</td>
<td>18.51813</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>161</td>
<td>6</td>
<td>2</td>
<td>12.04</td>
<td>0.296985</td>
<td>0.21</td>
<td>9.3717</td>
<td>14.7083</td>
</tr>
<tr>
<td>Resp(Group)</td>
<td>164</td>
<td>6</td>
<td>2</td>
<td>11.165</td>
<td>1.887975</td>
<td>1.335</td>
<td>-5.7978</td>
<td>28.12778</td>
</tr>
</tbody>
</table>
## Addendum N - Raw data - Real Age, Burt Age, Cloze scores

<table>
<thead>
<tr>
<th>Group</th>
<th>Resp</th>
<th>Real Age</th>
<th>Burt Age</th>
<th>Diff</th>
<th>Cloze</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1</td>
<td>9.92</td>
<td>11.83</td>
<td>-1.92</td>
<td>17</td>
<td>53</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>10.17</td>
<td>7.83</td>
<td>2.33</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>9.42</td>
<td>6.83</td>
<td>2.58</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>9.25</td>
<td>8.33</td>
<td>0.92</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>9.75</td>
<td>7.17</td>
<td>2.58</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>10.08</td>
<td>5.00</td>
<td>5.08</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>11.17</td>
<td>5.00</td>
<td>6.17</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>10.00</td>
<td>6.83</td>
<td>3.17</td>
<td>17</td>
<td>53</td>
</tr>
<tr>
<td>4</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>10.00</td>
<td>10.42</td>
<td>-0.42</td>
<td>27</td>
<td>84</td>
</tr>
<tr>
<td>4</td>
<td>13</td>
<td>10.17</td>
<td>12.00</td>
<td>-1.83</td>
<td>22</td>
<td>69</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>9.92</td>
<td>10.00</td>
<td>-0.08</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>10.00</td>
<td>9.00</td>
<td>1.00</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>10.33</td>
<td>8.83</td>
<td>1.50</td>
<td>10</td>
<td>31</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
<td>10.17</td>
<td>5.00</td>
<td>5.17</td>
<td>25</td>
<td>78</td>
</tr>
<tr>
<td>4</td>
<td>18</td>
<td>10.00</td>
<td>6.92</td>
<td>3.08</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td>4</td>
<td>19</td>
<td>9.75</td>
<td>10.92</td>
<td>-1.17</td>
<td>20</td>
<td>63</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td>9.83</td>
<td>6.75</td>
<td>3.08</td>
<td>15</td>
<td>47</td>
</tr>
<tr>
<td>4</td>
<td>21</td>
<td>9.42</td>
<td>10.83</td>
<td>-1.42</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td>4</td>
<td>22</td>
<td>10.83</td>
<td></td>
<td></td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>9.00</td>
<td>5.00</td>
<td>4.00</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td>10.08</td>
<td>6.83</td>
<td>3.25</td>
<td>13</td>
<td>41</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
<td>9.17</td>
<td>10.92</td>
<td>-1.75</td>
<td>18</td>
<td>56</td>
</tr>
<tr>
<td>4</td>
<td>26</td>
<td>9.92</td>
<td>11.58</td>
<td>-1.67</td>
<td>23</td>
<td>72</td>
</tr>
<tr>
<td>4</td>
<td>27</td>
<td>10.25</td>
<td>7.17</td>
<td>3.08</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td>4</td>
<td>28</td>
<td>9.25</td>
<td>8.83</td>
<td>0.42</td>
<td>12</td>
<td>38</td>
</tr>
<tr>
<td>4</td>
<td>29</td>
<td>9.75</td>
<td>8.00</td>
<td>1.75</td>
<td>21</td>
<td>66</td>
</tr>
<tr>
<td>4</td>
<td>30</td>
<td>12.08</td>
<td></td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>31</td>
<td>10.08</td>
<td>6.92</td>
<td>3.17</td>
<td>13</td>
<td>41</td>
</tr>
<tr>
<td>4</td>
<td>32</td>
<td>9.92</td>
<td>11.75</td>
<td>-1.83</td>
<td>18</td>
<td>56</td>
</tr>
<tr>
<td>4</td>
<td>33</td>
<td>10.33</td>
<td>10.50</td>
<td>-0.17</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td>4</td>
<td>34</td>
<td>10.67</td>
<td>7.50</td>
<td>3.17</td>
<td>12</td>
<td>38</td>
</tr>
<tr>
<td>4</td>
<td>35</td>
<td>9.33</td>
<td>7.58</td>
<td>1.75</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>36</td>
<td>10.58</td>
<td></td>
<td>4</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>37</td>
<td>10.92</td>
<td>7.83</td>
<td>3.08</td>
<td>13</td>
<td>41</td>
</tr>
<tr>
<td>4</td>
<td>38</td>
<td>10.00</td>
<td>9.92</td>
<td>0.08</td>
<td>17</td>
<td>53</td>
</tr>
<tr>
<td>4</td>
<td>39</td>
<td>10.08</td>
<td>9.92</td>
<td>0.17</td>
<td>15</td>
<td>47</td>
</tr>
<tr>
<td>4</td>
<td>40</td>
<td>11.67</td>
<td>6.75</td>
<td>4.92</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>41</td>
<td>10.92</td>
<td>12.00</td>
<td>-1.08</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td>4</td>
<td>42</td>
<td>10.67</td>
<td>7.50</td>
<td>3.17</td>
<td>9</td>
<td>28</td>
</tr>
<tr>
<td>4</td>
<td>43</td>
<td>10.58</td>
<td></td>
<td>8</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>44</td>
<td>9.92</td>
<td>9.67</td>
<td>0.25</td>
<td>23</td>
<td>72</td>
</tr>
<tr>
<td>4</td>
<td>45</td>
<td>9.58</td>
<td>9.50</td>
<td>0.08</td>
<td>21</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>4</td>
<td>46</td>
<td>9.83</td>
<td>7.92</td>
<td>1.92</td>
<td>13</td>
<td>41</td>
</tr>
<tr>
<td>4</td>
<td>47</td>
<td>10.25</td>
<td>7.17</td>
<td>3.08</td>
<td>15</td>
<td>47</td>
</tr>
<tr>
<td>4</td>
<td>48</td>
<td>9.42</td>
<td>7.00</td>
<td>2.42</td>
<td>12</td>
<td>38</td>
</tr>
<tr>
<td>4</td>
<td>49</td>
<td>9.25</td>
<td>5.00</td>
<td>4.25</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>5E</td>
<td>50</td>
<td>11.58</td>
<td>7.25</td>
<td>4.33</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>5E</td>
<td>51</td>
<td>10.75</td>
<td>11.33</td>
<td>-0.58</td>
<td>16</td>
<td>80</td>
</tr>
<tr>
<td>5E</td>
<td>52</td>
<td>10.75</td>
<td>8.25</td>
<td>2.50</td>
<td>16</td>
<td>80</td>
</tr>
<tr>
<td>5E</td>
<td>53</td>
<td>12.00</td>
<td>7.58</td>
<td>4.42</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>5E</td>
<td>54</td>
<td>12.42</td>
<td>6.67</td>
<td>5.75</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5E</td>
<td>55</td>
<td>11.58</td>
<td>10.75</td>
<td>0.83</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>5E</td>
<td>56</td>
<td>13.33</td>
<td>7.08</td>
<td>6.25</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>5E</td>
<td>57</td>
<td>10.17</td>
<td>10.17</td>
<td>0.00</td>
<td>16</td>
<td>80</td>
</tr>
<tr>
<td>5E</td>
<td>58</td>
<td>10.75</td>
<td>10.92</td>
<td>-0.17</td>
<td>18</td>
<td>90</td>
</tr>
<tr>
<td>5E</td>
<td>59</td>
<td>10.83</td>
<td>9.92</td>
<td>0.92</td>
<td>17</td>
<td>85</td>
</tr>
<tr>
<td>5E</td>
<td>60</td>
<td>10.75</td>
<td>10.92</td>
<td>-0.17</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>5E</td>
<td>61</td>
<td>12.08</td>
<td>9.25</td>
<td>2.83</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>5E</td>
<td>62</td>
<td>10.83</td>
<td>10.92</td>
<td>-0.08</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>5E</td>
<td>63</td>
<td>11.08</td>
<td>8.92</td>
<td>2.17</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>5E</td>
<td>64</td>
<td>11.08</td>
<td>9.17</td>
<td>1.92</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>5E</td>
<td>65</td>
<td>11.08</td>
<td>8.42</td>
<td>2.67</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>5E</td>
<td>66</td>
<td>10.33</td>
<td>10.00</td>
<td>0.33</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>5E</td>
<td>67</td>
<td>10.17</td>
<td>7.17</td>
<td>3.00</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>5E</td>
<td>68</td>
<td>11.92</td>
<td>10.00</td>
<td>1.92</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>5E</td>
<td>69</td>
<td>11.83</td>
<td>7.08</td>
<td>4.75</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>5E</td>
<td>70</td>
<td>10.67</td>
<td>10.33</td>
<td>0.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>71</td>
<td>11.92</td>
<td>6.00</td>
<td>5.92</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>5E</td>
<td>72</td>
<td>11.00</td>
<td>8.17</td>
<td>2.83</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>5E</td>
<td>73</td>
<td>12.25</td>
<td>7.58</td>
<td>4.67</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>5E</td>
<td>74</td>
<td>12.08</td>
<td>6.58</td>
<td>5.50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5E</td>
<td>75</td>
<td>12.25</td>
<td>7.25</td>
<td>5.00</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>5E</td>
<td>76</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>77</td>
<td>10.83</td>
<td>11.50</td>
<td>-0.67</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>5E</td>
<td>78</td>
<td>11.00</td>
<td>10.42</td>
<td>0.58</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>5E</td>
<td>79</td>
<td>11.17</td>
<td>9.83</td>
<td>1.33</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>5E</td>
<td>80</td>
<td>10.42</td>
<td>12.00</td>
<td>-1.58</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>5E</td>
<td>81</td>
<td>12.33</td>
<td>6.92</td>
<td>5.42</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>5E</td>
<td>82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5C</td>
<td>83</td>
<td>12.50</td>
<td>9.92</td>
<td>2.58</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>5C</td>
<td>84</td>
<td>11.08</td>
<td>8.17</td>
<td>2.91</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>5C</td>
<td>85</td>
<td>11.17</td>
<td>7.08</td>
<td>4.08</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>5C</td>
<td>86</td>
<td>12.08</td>
<td>7.08</td>
<td>5.00</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>5C</td>
<td>87</td>
<td>12.08</td>
<td>11.00</td>
<td>1.08</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>5C</td>
<td>88</td>
<td>10.42</td>
<td>11.83</td>
<td>-1.42</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>5C</td>
<td>89</td>
<td>11.17</td>
<td>10.75</td>
<td>0.42</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>5C</td>
<td>90</td>
<td>11.67</td>
<td>6.92</td>
<td>4.75</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>5C</td>
<td>91</td>
<td>11.92</td>
<td>10.00</td>
<td>1.92</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>5C</td>
<td>92</td>
<td>11.17</td>
<td>10.58</td>
<td>0.58</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>5C</td>
<td>93</td>
<td>11.25</td>
<td>10.42</td>
<td>0.83</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>5C</td>
<td>94</td>
<td>11.25</td>
<td>10.33</td>
<td>0.92</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>5C</td>
<td>95</td>
<td>11.92</td>
<td>8.25</td>
<td>3.67</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>5C</td>
<td>96</td>
<td>10.75</td>
<td>11.75</td>
<td>-1.00</td>
<td>16</td>
<td>80</td>
</tr>
<tr>
<td>5C</td>
<td>97</td>
<td>10.83</td>
<td>11.17</td>
<td>-0.33</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>5C</td>
<td>98</td>
<td>10.42</td>
<td>9.92</td>
<td>0.50</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>5C</td>
<td>99</td>
<td>12.42</td>
<td>11.92</td>
<td>0.50</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>5C</td>
<td>100</td>
<td>10.67</td>
<td>12.00</td>
<td>-1.33</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>5C</td>
<td>101</td>
<td>12.67</td>
<td>10.42</td>
<td>2.25</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>5C</td>
<td>102</td>
<td>11.00</td>
<td>10.58</td>
<td>0.42</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>5C</td>
<td>103</td>
<td>12.42</td>
<td>8.42</td>
<td>4.00</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>5C</td>
<td>104</td>
<td>10.67</td>
<td>13.00</td>
<td>-2.33</td>
<td>16</td>
<td>80</td>
</tr>
<tr>
<td>5C</td>
<td>105</td>
<td>11.25</td>
<td>9.00</td>
<td>2.25</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>5C</td>
<td>106</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>5C</td>
<td>107</td>
<td>12.67</td>
<td>6.83</td>
<td>5.83</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>5C</td>
<td>108</td>
<td>10.50</td>
<td>10.75</td>
<td>-0.25</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>5C</td>
<td>109</td>
<td>12.67</td>
<td>8.92</td>
<td>3.75</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>5C</td>
<td>110</td>
<td>11.00</td>
<td>11.67</td>
<td>-0.67</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>5C</td>
<td>111</td>
<td>12.08</td>
<td>7.08</td>
<td>5.00</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>5C</td>
<td>112</td>
<td>11.25</td>
<td>7.67</td>
<td>3.58</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>5C</td>
<td>113</td>
<td>12.25</td>
<td>6.75</td>
<td>5.50</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>5C</td>
<td>114</td>
<td>12.50</td>
<td>6.92</td>
<td>5.58</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>5C</td>
<td>115</td>
<td>10.75</td>
<td>10.92</td>
<td>-0.17</td>
<td>17</td>
<td>85</td>
</tr>
<tr>
<td>5C</td>
<td>116</td>
<td>10.67</td>
<td>10.17</td>
<td>0.50</td>
<td>16</td>
<td>80</td>
</tr>
<tr>
<td>5C</td>
<td>117</td>
<td>12.42</td>
<td>6.33</td>
<td>6.08</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>118</td>
<td></td>
<td></td>
<td></td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>6</td>
<td>119</td>
<td>12.00</td>
<td>8.17</td>
<td>3.83</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>6</td>
<td>120</td>
<td>11.33</td>
<td>11.83</td>
<td>-0.50</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>6</td>
<td>121</td>
<td>11.67</td>
<td>8.58</td>
<td>3.08</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>6</td>
<td>122</td>
<td></td>
<td></td>
<td></td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>6</td>
<td>123</td>
<td>12.25</td>
<td>13.00</td>
<td>-0.75</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>6</td>
<td>124</td>
<td></td>
<td></td>
<td></td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>6</td>
<td>125</td>
<td>13.08</td>
<td>11.25</td>
<td>1.83</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>6</td>
<td>126</td>
<td>11.83</td>
<td>11.67</td>
<td>0.17</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>6</td>
<td>127</td>
<td>12.75</td>
<td></td>
<td></td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>128</td>
<td></td>
<td></td>
<td></td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>6</td>
<td>129</td>
<td>13.25</td>
<td>13.00</td>
<td>0.25</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>130</td>
<td>12.08</td>
<td>9.17</td>
<td>2.92</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>6</td>
<td>131</td>
<td>13.33</td>
<td>7.25</td>
<td>6.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>132</td>
<td>12.33</td>
<td>10.58</td>
<td>1.75</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>6</td>
<td>133</td>
<td>11.83</td>
<td>13.00</td>
<td>-1.17</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>6</td>
<td>134</td>
<td>11.75</td>
<td>13.00</td>
<td>-1.25</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>6</td>
<td>135</td>
<td></td>
<td></td>
<td></td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>6</td>
<td>136</td>
<td>11.75</td>
<td>12.00</td>
<td>-0.25</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>6</td>
<td>137</td>
<td>11.92</td>
<td>13.00</td>
<td>-1.08</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>6</td>
<td>138</td>
<td>13.33</td>
<td>7.67</td>
<td>5.67</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>139</td>
<td>12.00</td>
<td>13.00</td>
<td>-1.00</td>
<td>18</td>
<td>90</td>
</tr>
<tr>
<td>6</td>
<td>140</td>
<td>12.08</td>
<td>11.58</td>
<td>0.50</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>141</td>
<td>12.33</td>
<td>12.00</td>
<td>0.33</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>6</td>
<td>142</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>143</td>
<td>12.17</td>
<td>11.67</td>
<td>0.50</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>6</td>
<td>144</td>
<td></td>
<td></td>
<td></td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>6</td>
<td>145</td>
<td>12.17</td>
<td>9.08</td>
<td>3.08</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>146</td>
<td>11.58</td>
<td>11.00</td>
<td>0.58</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>6</td>
<td>147</td>
<td>12.08</td>
<td>8.92</td>
<td>3.17</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>6</td>
<td>148</td>
<td>13.75</td>
<td>13.00</td>
<td>0.75</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>6</td>
<td>149</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>150</td>
<td>11.75</td>
<td>13.00</td>
<td>-1.25</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>6</td>
<td>151</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>152</td>
<td>12.58</td>
<td>11.58</td>
<td>1.00</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>6</td>
<td>153</td>
<td>12.08</td>
<td>10.58</td>
<td>1.50</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>6</td>
<td>154</td>
<td>12.83</td>
<td>10.92</td>
<td>1.92</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>155</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>156</td>
<td>13.33</td>
<td>6.92</td>
<td>6.42</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>6</td>
<td>157</td>
<td></td>
<td></td>
<td></td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>6</td>
<td>158</td>
<td>11.67</td>
<td>10.50</td>
<td>1.17</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>6</td>
<td>159</td>
<td></td>
<td></td>
<td></td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>6</td>
<td>160</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>161</td>
<td>12.25</td>
<td>11.83</td>
<td>0.42</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>6</td>
<td>162</td>
<td></td>
<td></td>
<td></td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>6</td>
<td>163</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>164</td>
<td>12.50</td>
<td>9.83</td>
<td>2.67</td>
<td>13</td>
<td>65</td>
</tr>
</tbody>
</table>
Addendum O – Comparison of ET and STT scores for Experimental Group

Comparison of Exploratory Test and Strategy Transfer Test results for all learners in the Experimental Group for whom a score from both tests was obtained.

This page displays the raw test scores including the measurements that did not form part of the ET vs. STT comparison; the following page displays the mean and standard deviation for both scores in each of the three measurements (Q, S, M).

<table>
<thead>
<tr>
<th>Group</th>
<th>Resp</th>
<th>Q1</th>
<th>S1</th>
<th>M1</th>
<th>Total</th>
<th>Total</th>
<th>Q2</th>
<th>S2</th>
<th>M2</th>
<th>TT</th>
<th>T</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>5E</td>
<td>50</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>5E</td>
<td>51</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>12</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>5E</td>
<td>52</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>9</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>5E</td>
<td>53</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>7</td>
<td>8</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>5E</td>
<td>54</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>55</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>56</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>5E</td>
<td>57</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>10</td>
<td>11</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>58</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>10</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>59</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>9</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>60</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>10</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>61</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>62</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>63</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>64</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>10</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>66</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>68</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>10</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>69</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>70</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>8</td>
<td>9</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>71</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>72</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>73</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>8</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>74</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>75</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>7</td>
<td>8</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>76</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>8</td>
<td>12</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>78</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>79</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>80</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>7</td>
<td>10</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>81</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>7</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>5E</td>
<td>82</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>9</td>
<td>10</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>N</td>
<td>Questioning</td>
<td></td>
<td>Summarisation</td>
<td></td>
<td>Monitoring</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>----</td>
<td>-------------</td>
<td>---</td>
<td>--------------</td>
<td>---</td>
<td>-----------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>63</td>
<td>2.62</td>
<td>0.92</td>
<td>2.92</td>
<td>1.10</td>
<td>1.92</td>
<td>0.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exploratory Test</td>
<td>30</td>
<td>2.30</td>
<td>1.02</td>
<td>2.40</td>
<td>0.97</td>
<td>1.47</td>
<td>0.68</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategy Transfer Test</td>
<td>33</td>
<td>2.91</td>
<td>0.72</td>
<td>3.39</td>
<td>1.00</td>
<td>2.33</td>
<td>0.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learner 50</td>
<td></td>
<td>2.50</td>
<td>0.71</td>
<td>2.50</td>
<td>0.71</td>
<td>2.00</td>
<td>1.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learner 51</td>
<td></td>
<td>4.00</td>
<td>0.00</td>
<td>3.50</td>
<td>2.12</td>
<td>2.00</td>
<td>1.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td></td>
<td>2.50</td>
<td>0.71</td>
<td>2.50</td>
<td>2.12</td>
<td>1.50</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td></td>
<td>2.50</td>
<td>0.71</td>
<td>3.50</td>
<td>0.71</td>
<td>1.50</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td></td>
<td>1.50</td>
<td>0.71</td>
<td>1.50</td>
<td>0.71</td>
<td>2.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td></td>
<td>1.50</td>
<td>0.71</td>
<td>2.00</td>
<td>0.00</td>
<td>2.50</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56</td>
<td></td>
<td>2.00</td>
<td>1.41</td>
<td>2.00</td>
<td>1.41</td>
<td>1.50</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57</td>
<td></td>
<td>4.00</td>
<td>0.00</td>
<td>3.50</td>
<td>0.71</td>
<td>3.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td></td>
<td>3.00</td>
<td>0.00</td>
<td>2.50</td>
<td>2.12</td>
<td>3.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59</td>
<td></td>
<td>3.00</td>
<td>0.00</td>
<td>3.50</td>
<td>0.71</td>
<td>2.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td>3.50</td>
<td>0.71</td>
<td>3.00</td>
<td>0.00</td>
<td>2.50</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61</td>
<td></td>
<td>2.00</td>
<td>1.41</td>
<td>3.50</td>
<td>0.71</td>
<td>2.50</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62</td>
<td></td>
<td>2.00</td>
<td>0.00</td>
<td>2.00</td>
<td>0.00</td>
<td>1.50</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63</td>
<td></td>
<td>2.50</td>
<td>0.71</td>
<td>1.00</td>
<td>0.00</td>
<td>1.50</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64</td>
<td></td>
<td>2.50</td>
<td>0.71</td>
<td>3.50</td>
<td>0.71</td>
<td>2.50</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66</td>
<td></td>
<td>3.00</td>
<td>0.00</td>
<td>2.50</td>
<td>0.71</td>
<td>2.00</td>
<td>1.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68</td>
<td></td>
<td>2.50</td>
<td>0.71</td>
<td>2.50</td>
<td>2.12</td>
<td>3.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69</td>
<td></td>
<td>1.50</td>
<td>0.71</td>
<td>3.50</td>
<td>0.71</td>
<td>1.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
<td>4.00</td>
<td>0.00</td>
<td>3.50</td>
<td>0.71</td>
<td>1.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71</td>
<td></td>
<td>1.50</td>
<td>0.71</td>
<td>3.00</td>
<td>0.00</td>
<td>1.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td></td>
<td>2.00</td>
<td>1.41</td>
<td>3.00</td>
<td>0.00</td>
<td>2.00</td>
<td>1.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73</td>
<td></td>
<td>3.00</td>
<td>0.00</td>
<td>3.00</td>
<td>1.41</td>
<td>1.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>74</td>
<td></td>
<td>1.50</td>
<td>0.71</td>
<td>1.50</td>
<td>0.71</td>
<td>1.50</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td></td>
<td>3.00</td>
<td>0.00</td>
<td>3.50</td>
<td>0.71</td>
<td>1.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td></td>
<td>3.50</td>
<td>0.71</td>
<td>4.50</td>
<td>0.71</td>
<td>2.00</td>
<td>1.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>78</td>
<td></td>
<td>1.00</td>
<td>0.00</td>
<td>2.00</td>
<td>0.00</td>
<td>2.00</td>
<td>1.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td></td>
<td>3.00</td>
<td>0.00</td>
<td>3.00</td>
<td>0.00</td>
<td>2.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
<td>3.00</td>
<td>0.00</td>
<td>4.00</td>
<td>1.41</td>
<td>1.50</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>81</td>
<td></td>
<td>3.00</td>
<td>0.00</td>
<td>3.00</td>
<td>0.00</td>
<td>2.00</td>
<td>1.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>82</td>
<td></td>
<td>3.00</td>
<td>0.00</td>
<td>4.50</td>
<td>0.71</td>
<td>2.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Addendum P – Original Afrikaans utterances

Text 1
Ons voel die kurrikulum adiviseur ... sy sit te veel op ... hulle laat haar te veel dinge toe. Hulle laat haar te veel dinge toe. Hy moet mos vir haar te sê ... ek het hom persoonlik gevra en ek het vir hom gesê „Vra haar of sy nie die beplanning kan doen in daai ... „ Ons het ‘n hele eksamen om te doen! Wat doen ons vir ‘n hele week na progressie en promosie? Dis meer as ‘n week ... dit is mos waarvoor daardie week daar is ... vir beplanning ... 

Text 2
Ons is nie bekommerd as ons lêers nie reg is wanneer hulle kom nie. Ek het nou die dag vir haar gesê om die lêers te los en eerder in my leerders se boeke te kyk. Dis waar hulle behoort te kyk – in die leerders se boeke.

Text 3
N: Is jy al meer gemaklik met hierdie tipe van ding? Of stres jy nog so bietjie?
O: Ek stres nog so bietjie (laggend), die senuwees werk nog so bietjie, maar ek as mens dit seker weer doen ... dan sal dit nie ... sal dit nie ... en ek sê vir myself dit elke week ... maar dis ongelukkig net, dis tyd ... die onderwysstelsel is heetemal ...
N: Maar baie van die goed is in julle, um, in julle kurrikulum ...
O: Ja-nee, dis hoekom ek sê ... Mnr [skoolhoof] het vir my verlede week gevra [onduidelike frase] toe sê hy Oeee, juffrou, dis net te veel admin, né ... en toe sê hy en dan het jy nog vir [die navorsingsintervensie] ook. Ja, maar toe vra hy vir my „By the way’ hoe gaan dit, ek sê vir hom ek vind baie baat daarby en ek toe sê vir hom dit vorm deel van ons assesseringstandaarde ... oee, toe’s daai ou baie impressed!
N: O, ek is bly
O: Ja-nee, maar toe sê ek vir hom, ek ... ek meen ... dit is nou ... dis miskien ... ek wens net ons het ... ons onderwysers ... het meer tyd om daardie leesles te benut soos hy moet ... regtig waar ...
N: Stem saam. Maar om op die manier met die tekste om te gaan leer jou ook ‘n klomp goed ...
O: Ja!
N: Dit leer mens heetemal anders dink ...
O: Ja! Ek het baie ... ek het myself baie geleer, en ek het *baie* baat gevind, dit het *regtig* vir my gehelp. Ek vind baie baat hereby. Dit help vir my met al daardie blou boeke, dit help vir my met baie dinge wat ek nie voorheen nie ... definitief.

*En later in dieselfde gesprek:*

O: Jy kan sien hulle geniet dit [die intervensielesse]. Maar mens skeep hulle so af, weet jy ... ons skeep regtig die kinders af.
Addendum Q1 – Reading text 1

The Bell on the Cat

Some mice met under the floor of a house. Above the floor lived a family with a big cat. The mice had a meeting to talk about the cat.

“What are we going to do?” asked the brown mouse.

“Soon there will be none of us left,” said the grey mouse.

“I was almost cat dinner last week,” said the big mouse.

“We could move next door,” said the brown mouse.

“It’s too close”, said the grey mouse.

“The cat will still find us,” said the big mouse.

“We could get a dog,” said the brown mouse.

“But some dogs like to chase mice,” said the grey mouse.

“I know what to do!” cried the big mouse. “We could tie a bell around the cat’s neck. Then we could hear it coming.”

“What a good idea!” said the brown mouse.

“Let’s do it,” said the grey mouse.

Then the old mouse spoke.

“It’s a good idea,” said the old mouse. “But who will tie the bell around the cat’s neck?”

“Hmm! Not me,” said the brown mouse.

“Er! Not me,” said the grey mouse.

“Uh oh! Not me,” said the big mouse.

This story has a lesson.

Extract from The Bell on the Cat
Robyn Opie and David Follet (WINGS)
The Wooden Bowl

There was once a young girl who lived with her mother, her father and her grandmother. The mother and father went to work each day and the grandmother looked after the little girl.

One day the grandmother became ill. She was so ill that she could not look after the girl. That night at dinner, the old lady accidentally knocked her soup bowl off the table and it shattered into small pieces on the floor.

“That was an expensive bowl,” said the mother angrily.

“It was part of a set,” said the father. “I don’t think we can replace it.”

Next day, the girl’s parents gave the grandmother her food in an old wooden bowl.

“This bowl won’t break if you knock it onto the floor,” said the mother.

So at every meal, the grandmother ate out of the old wooden bowl.

Some months later, the old lady became so ill that she died. The little girl was sad to lose her grandmother who had looked after her so long.

After the funeral, the girl’s parents were cleaning out the old lady’s room and putting all her belongings into a pile. As the little girl watched, she saw the old wooden bowl thrown onto the pile. She pulled the bowl off the pile and put it into the kitchen cupboard.

“We’re getting rid of all Grandmother’s things,” said the mother.

“So we’ll be getting rid of the bowl as well,” said the father.

“But I need to keep it,” said the little girl.

“Why would you want to keep that old bowl?” asked her parents.

“I’ll need it for when you are old,” she replied.

*From Step Beyond 4*
Addendum Q3 – Reading text 3

No title (learner’s were required to provide one)

Christopher Nixon was having a birthday party. All his friends were there.

“We have a surprise for you, Christopher,” said Mr Nixon. “I wonder if anyone can guess what it is.”

“Can you give us a clue?” asked Tara.

“Well,” said Mr Nixon, “it’s something I can’t wrap.”

“Then it must be big,” said Ricky.

Mr Nixon smiled. “No, it’s not big.”

“Is it something that can be easily broken?” asked Lisa.

Mr Nixon shook his head. “No, it’s not.”

The next question came from Sophie. She lived next door to Christopher. She was good at solving mysteries. She wanted to be a spy when she grew up. Her friends called her ‘Sophie Spy’.

Sophie thought about Mr Nixon’s clues.

“Is it alive?” she asked.

Mr Nixon nodded. “Why, yes it is, Sophie.”

“Hmm. Can you cuddle it?” she asked.

“Yes.”

Sophie thought very carefully about her next question.

“Does it like to eat bones?”

Mr Nixon chuckled. “Yes, it does.”

Sophie widened her eyes and said, “Is it a puppy?”

“Well done, Sophie!” cried Mr Nixon. “You’re right!”

Mrs Nixon brought in the puppy. It was a beagle, with big floppy ears and a tail that couldn’t stop wagging. There was a large red ribbon around its neck. On the ribbon was a name: LUCY. Christopher cuddled her.

(Text provided by teacher)
Addendum R – Sample of observation notes

GR 5 QAR lesson 3 Long lesson 24/8/09
Text: Wooden Bowl (Step Beyond 4)

PURPOSE

By text type ✓ Teacher 1B's genre (parable)
ACT PRIOR KNOWL ✓ Well done

Teacher reads text to class. Learners assist in reading.

AFTER ID 3 QAR types

Comment: To enable learners to employ "pull" kind... first discuss text (discussed with teacher... she did this)

Discuss words used in compiling questions:

Suggest: Practice concept of posing questions orally a few times. Start small, one or 2 questions.
Perhaps do one question type at a time

discussed with teacher - she switched to right there only - learners more confident. Good participation.

Teacher's comment. By class: Starting to see that R1 methods of this research relates to learning outcomes + ASSA Std's for Reading Gr. 5.
Addendum S – Extract from proposed national curriculum

Different kinds of texts for particular purposes and audiences. This approach is informed by an understanding of how texts are constructed.

A **communicative approach** suggests that when learning a language, a learner should have a great deal of exposure to the target language and have many opportunities to practise or produce the language by communicating for social or practical purposes. Language learning should be a natural, informal process carried over into the classroom where literacy skills of reading/viewing and writing/presenting are learned in a „natural” way. Learners read by doing a great deal of reading and learn to write by doing much writing.

**Process approach to writing**
Writing and designing texts is a process which consists of the following stages:

- Pre-writing/planning
- Drafting
- Revision
- Editing/proofreading
- Publishing/presenting.

Learners need an opportunity to put this process into practice and they should:

- decide on the purpose and audience of a text to be written and/or designed.
- brainstorm ideas using, for example mind maps, flow charts or lists.
- consult relevant sources, select relevant information and organise ideas.
- produce a first draft, which takes into account purpose, audience, topic and text structure.
- read drafts critically and get feedback from others (classmates or the teacher).
- edit and proofread the draft.
- produce a neat, legible, edited final version.

**The reading process**
The reading process consists of the pre-reading, reading and post-reading stages. The activities can be summarised as follows:

**Pre-reading:**

- Activating prior knowledge
- Looking at the source, author, and publication date
- Reading the first and last paragraphs of a section
- Making predictions.

**Reading:**

- Pause occasionally to check your comprehension and to let the ideas sink in.
- Compare the content to your predictions.
- Keep going even if you do not understand a part here and there.
- Reread a section if you get completely lost. Read confusing sections aloud, at a slower pace, or both.
- Ask someone to help you understand a difficult section.
- Add reading marks and annotate key points.
- Reflect on what you read.
Post-reading:
- If you will need to recall specific information, make a graphic organiser or outline of key ideas and a few supporting details.
- Draw conclusions.
- Write a summary to help you clarify and recall main ideas.
- Think about and write down new questions you have on the topic.
- Assess the purpose - did you accomplish it?
- Confirm your understanding of what you have read.
- Evaluate what you have read, taking into account bias, accuracy and quality.
- Extend your thinking - use ideas you saw in the text.

Extract from pp. 9-10, Section 2.4: Language Teaching Approaches