

**Multimodal modelling of self-directed reading
comprehension strategies in the Foundation
Phase to improve comprehension skills**

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DECLARATION OF AUTHENTICITY

DECLARATION

I the undersigned, hereby declare that the work contained in this dissertation is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

Signature

29 November 2022

Date

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This dissertation is dedicated to:

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ABSTRACT

In this research, multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase was explored. The results of the systemic tests done by the Western Cape Education Department and PIRLS (2016) have shown that learners in the Foundation Phase have difficulty reading for meaning. The problem driving this research was to explore how teachers could be empowered to teach reading comprehension strategies and to incorporate multimodal modelling and to encourage self-directed learning in the Foundation Phase.

The theories that pertained to reading (an important aspect of reading comprehension) underpinning this research relate to the simple view of reading, the schema theory and the social constructivist theory. The simple view of reading involves a psychologically based framework composed of two main sections that are key to reading, namely word recognition (decoding) and linguistic (language) comprehension. The schema theory entails reading, listening and comprehension. The original theoretical concept of social constructivism was that learning happens and is abetted during social exchanges. The theoretical framework for self-directed learning comprises constructivism, social constructivism, the socio-cultural theory of learning, Bandura's social learning theory and self-determination theory.

This research involved qualitative research which included an intervention encompassing an in-depth modelling of the reading comprehension skills for teachers in the Foundation Phase within the Western Cape. The research was paradigmatically situated in interpretivism. Purposive sampling was used to select the research participants, who were teachers and departmental officials. Initially, a literature study was done to discuss reading and reading comprehension, self-directed learning, and multimodal learning. Open-ended questionnaires, focus group and individual, semi-structured interviews were used to gather information.

The findings suggest that reading comprehension strategies need to be taught in the Foundation Phase using various strategies. Teachers need to support learners to become self-directed in their learning and reading. The use of technology in the classroom caters for the needs of all learners, including those with diverse and special needs. An important finding during the research process was that in multi-grade classes the teachers have been supporting learners to be self-directed in their learning so that the teacher becomes the facilitator of learning.

Keywords

Reading comprehension, reading comprehension strategies, Foundation Phase, self-directed learning (SDL), multimodal modelling, reading across the curriculum

OPSOMMING

In hierdie navorsing is multimodale modellering van selfgerigte leesbegripstrategieë in die Grondslagfase ondersoek. Die uitslae van die sistemiese toetse wat deur die Wes-Kaapse Onderwysdepartement (WKOD) en PIRLS (2011) gedoen is, het getoon dat leerders in die Grondslagfase sukkel om met betekenis te lees. Die probleem wat hierdie navorsing gerig het, was om te ondersoek hoe onderwysers bemagtig kan word in die onderrig van leesbegripstrategieë, die integrering van multimodale modellering en die aanmoediging van selfgerigte leer in die Grondslagfase.

Die teorieë wat hierdie navorsing onderlê, en wat betrekking het op lees, wat 'n belangrike aspek van leesbegrip is, hou verband met die eenvoudige siening van lees, die skemateorie en die sosiaal-konstruktivistiese teorie. Die eenvoudige siening van lees is 'n psigologiesgebaseerde raamwerk wat bestaan uit twee hoofafdelings wat kernbelangrik vir lees is, naamlik woordherkenning (dekodering) en linguistiese (taal-) begrip (Tennent, 2015). Die skemateorie behels lees, luister en begrip. Die oorspronklike teoretiese konsep van sosiaalkonstruktivistiese seining was dat leer plaasvind en aangehelp word tydens sosiale uitruilings (Woolley, 2011). Die teoretiese raamwerk vir selfgerigte leer is konstruktivisme, sosiale konstruktivisme, die sosiokulturele teorie van leer, Bandura se sosialeleerteorie en selfdeterminasieteorie.

Hierdie navorsing het kwalitatiewe navorsing genoodsaak wat 'n intervensie ingesluit het wat diepgaande modellering van die leesbegripvaardighede met onderwysers in die Grondslagfase binne die Wes-Kaap ingesluit het. Die navorsing was paradigmaties geleë in die interpretivisme. Doelgerigte steekproefneming is gebruik om die navorsingsdeelnemers te selekteer wat uit onderwysers en departementele amptenare verkry is. Aanvanklik is 'n literatuurstudie gedoen om lees en leesbegrip, selfgerigte leer en multimodale leer te bespreek. Oopeindevraelyste, fokusgroep- en individuele, semi-gestruktureerde onderhoude is gebruik om inligting in te samel.

Die bevindinge dui daarop dat leesbegripstrategieë in die Grondslagfase onderrig moet word deur verskeie strategieë te gebruik. Onderwysers moet leerders ondersteun om selfgerig te word in hul leer en lees. Die gebruik van tegnologie in die klaskamer voorsien aan die behoeftes van alle leerders, insluitend dié met diverse en spesiale behoeftes. 'n Belangrike bevinding van die navorsingsproses was dat die onderwysers leerders in multigraadklasse ondersteun het om selfgerig te wees in hul leer sodat die onderwyser die fasiliteerder van leer word.

Sleutelwoorde

Leesbegrip, leesbegripstrategieë, Grondslagfase, selfgerigte leer, multimodale modellering, lees oor die hele kurrikulum

LIST OF ABBREVIATIONS

CALL	Computer-assisted Language Learning
DBE	Department of Basic Education
DRLRL	Disciplined Reading and Learning Research Laboratory
EFL	English Foreign Language
ESL	English Second Language
EduREC	Faculty of Education Research Ethics Committee
FAL	First Additional Language
GRR	Gradual Release of Responsibility
HL	Home Language
ICT	Information and Communications Technology
ISSDL	International Society for Self-directed Learning Symposium
LoLT	Language of Learning and Teaching
MALL	Mobile-assisted Language Learning
PPC	Person, Process and Context
PRO	Personal Responsibility Orientation
PIRLS	Progress in International Reading Literacy Study
SDT	Self-determination Theory
SDL	Self-directed learning
SDLI	Self-directed Learning Instrument
SRSSDL	Self-rating Scale of Self-directed Learning
SVR	Simple View of Reading
TDL	Teacher-directed Learning
VARK	Visual, Auditory, Written, and Kinaesthetic
WCED	Western Cape Education Department
ZPD	Zone of Proximal Development

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CHAPTER 1: BACKGROUND OF THE STUDY

1.1 Introduction

The purpose of this chapter is to provide the background and basic rationale behind this study. The problem statement will first be discussed against the background of learners' poor reading and reading comprehension as was highlighted in the Progress in International Reading Literacy Study (PIRLS) of 2016 and the Western Cape Education Department (WCED) systemic tests as written by learners in Grade 3, 6 and 9. The definition of some terminology is explained before the research questions, aims, the research design and methodology, method of data analysis and the contribution of this study are discussed.

1.2 Definitions of terminology

The following section explains my understanding of core concepts within the context of the proposed research.

A **text** is the use of symbols that entwines print and illustration in a multimodal format (Moreillon, 2007; Tennent, 2015; Kress & Van Leeuwen, 2017).

Reading is constructing meaning from print and visual information (Landsberg et al., 2016; Moreillon, 2007).

Reading strategies are deliberate, goal-directed attempts to control and modify the reader's awareness to decode text, understand words and construct meanings of text (Afflerbach et al., 2008).

Reading comprehension strategies are tools that proficient readers use to solve the comprehension problems they encounter in texts (Moreillon, 2007). Bartoli and Botel (1988, cited by Weaver, 1994, p. 44) express that it involves interrelated strategies such as predicting, questioning, summarising, and defining meanings of vocabulary in context.

Multimodality can be regarded as an interdisciplinary approach that implies that representation and communication extend beyond written language and includes a multiplicity of modes. This concept refers to the theory that meaning is represented and communicated across and within cultures by a wide variety of semiotic resources (Serafini, 2014, p. 172). In a multimodal framework, the general questions remain, though the approach, given the

semiotic framework, differs. There is no question of separating form from meaning; the sign is always meaning-as-form and form-as-meaning (Kress, 2003).

Multimodal ensemble refers to a cohesive entity that uses a variety of semiotic resources, including written language, visual images and design elements to represent and communicate ideas and meanings. A text may occur in both print and digital environments and utilise a variety of cultural and semiotic resources to articulate, render, represent and communicate an array of concepts and information (Serafini, 2014, p. 172).

Self-directed learning (SDL) describes a “process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, identifying human and material resources for learning, choosing and implementing appropriate learning strategies and evaluating learning outcomes” (Knowles, 1975, p. 18). This self-managed learning is a process in which the learner is responsible for identifying what is to be learned, when it is to be learned and how it is to be learned (Guglielmino & Guglielmino, 2001).

1.3 Research problem

The motivation for this study was drawn from several key aspects of literature. The lack of reading comprehension is evident in the results of the Progress in International Reading Literacy Study (PIRLS) of 2016, written by Grade 4 learners across South Africa, as well as the provincial systemic tests that are currently written by learners in Grade 3, 6 and 9, which are run by the WCED. The PIRLS assesses reading comprehension and monitors trends in reading literacy at five-year intervals (Howie et al., 2016, p. 1). Around 78% of South African Grade 4 learners assessed using PIRLS literacy passages in 2016 did not reach the international benchmarks (500) and therefore do not have basic reading skills by the end of the Grade 4 school year (Howie et al., 2016). The PIRLS literacy consists of passages and items which assess reading literacy at the lower end of the reading comprehension scale (easier passages and items) (Howie et al., 2016, p. 1). The systemic tests, however, involve English and Mathematics tests, which are only written in Western Cape schools, in Grades 3, 6 and 9. These tests are written within the first two weeks of the fourth term. The results indicate that learners can answer literal questions but have great difficulty with inferential and evaluative comprehension questions. Reading for meaning or with comprehension remains a focus area. Writing (sentence construction) is still a challenge for learners in Grades 3 and 6 (Schaffer, 2022). According to the provincial results for 2019 English Home Language, the average for the province is 44,9% (WCED, 2020). These results were released on the Centralised Educational Management Information System (CEMIS) in February 2020.

As indicated by the statistics, PIRLS (2016) and systemic tests, learner comprehension in South Africa is poor and this forms part of my research, which emanates from empirically based needs and a personal journey. In my tenure as a teacher and currently a learning support teacher, I have encountered and interacted with many learners with special needs. Special needs are currently referred to as barriers to learning (Landsberg et al., 2016; DBE, 2001). According to White Paper 6, part of the definition for inclusive education, under which barriers to learning resort, is “maximising the participation of all learners in the culture and the curriculum of educational institutions and uncovering and minimising barriers to learning” (DBE, 2001, p. 7). The main aim is to bring support to the learner, rather than taking the learner to where the support is (cf. 2.13, 2.18). All learners need some form of support. As South Africa are doing poorly in PIRLS (2016), we need to support most learners in the classroom. Barriers to learning include not having acquired the necessary skills to develop the skill of reading with comprehension, learners who do not read at grade level, the language of learning and teaching (LoLT) not being the same as their mother tongue, the lack of fluency in reading that causes difficulty with comprehending texts as well as barriers to listening. The screening, identification, assessment and support (SIAS) document shifts to a holistic approach instead of focusing on “‘deficits’ that have been identified in ‘individual learners’” (DBE, 2014, p. 15). This holistic approach concentrates on a ‘whole range of barriers to learning that a learner may experience (such as extrinsic barriers in the home, school or community environment, or intrinsic barriers related to disabilities or diverse learning needs)’ (DBE, 2014, p. 15). The aim of the SIAS (DBE, 2014) is to design programmes in order for the learner to reap the benefit from learning programmes. It is evident that, during reading comprehension, Grade 4 and 5 learners can answer lower order questions but have great difficulty with higher order questions (Howie et al., 2016). This observation highlights the skills that learners need to answer higher order questions. All learners need some form of support. The South African learners are doing poorly in PIRLS (Howie, et al., 2016) and we need to support most children in the classroom. I have always been keen to understand if, when and how reading comprehension strategies are taught in the Foundation Phase. Through a reading scholarship that I completed in 2012, I gained insight into fostering learners’ reading comprehension skills in classrooms and thus wanted to pursue this research.

The importance of comprehension and reading comprehension strategies equates to what and how children are taught in Grades R to 3 as there appears to be a gap in the Curriculum and Assessment Policy Statements (CAPS) (DBE, 2011a) Home Language (English) document that guides teachers on how to teach the comprehension strategies, as it is listed as part of Listening and Speaking and Reading and Viewing. The CAPS guidelines for the

skills to be taught under Listening and Speaking in the Foundation Phase (Grades R to 3) (DBE, 2011a, p. 23) require that the learners listen to stories, answer questions verbally, make predictions and give opinions on cause and effect. The skills to be taught in Reading and Viewing during Shared Reading (DBE, 2011a) are sequencing the story, justifying whether they enjoyed the story and answering open-ended and higher order questions. However, during Group Guided Reading under Reading and Viewing (DBE, 2011a), it requires that the learner use self-correcting reading strategies, monitor themselves when reading and read with fluency and expression, all of which require a degree of self-direction. However, if we can incorporate Barrett's taxonomy of cognitive and affective dimensions of reading comprehension (Clymer, 1968) (literal comprehension, reorganisation, inferential comprehension, evaluation and appreciation (Tennent, 2015), we would have learners who would improve in their literal and inferential comprehension. Keene and Zimmerman (2007, p. 32) posit that "we explicitly teach the comprehension strategies to ensure that children do not become expert decoders but learn to create meaning naturally and subconsciously as they read". Furthermore, teachers can utilise different strategies to improve comprehension skills in the classroom.

The following strategies are suggested for effective reading comprehension: preparation, organisation, elaboration and metacognition. Preparational strategies comprise guiding learners through a preview process where the cover of a book or title of the story is discussed to unlock their prior knowledge, prediction of the story "and making them aware of the purpose of reading the story" (Landsberg et al., 2016, p. 366). Organisational strategies are utilised to guide the learners' thinking processes in expressing the main idea, (re)organising the specifics of the story and summarising the story. Elaboration supports the child in drawing inferences, using imaging elements from the content and "generating questions and evaluating the text" (Landsberg et al., 2016, p. 367). Lastly, metacognitive strategies help learners to "regulate their processing of the text" (Landsberg et al., p. 367), to check their understanding and modify any misreading. Metacognitive strategies could also potentially assist and support learners in becoming self-directed. Children's inquisitive nature compels them to ask questions and therefore metacognition (thinking about thinking) can build on this aspect. As teachers, we need to nurture and latch on to this disposition by encouraging them to ask questions. Using the above-mentioned strategies, we can also guide them by teaching them different ways to ask their questions.

Reading aloud or tapping into children's senses supports their development of the skill of visualisation (Keene & Zimmerman, 2007; Schreuder, 2010). The text must be rich in

descriptive language, as it needs to help the learner with the visualisation thereof (Keene & Zimmerman, 2007). Visual learners (Armstrong, 2009) will concentrate on the pictures displayed in the “Big Book”. The “Big Book” is an extra-large reader with enlarged text that the teacher uses during shared reading and reading aloud. Auditory learners listen to the teacher’s intonation, use of punctuation, fluency, and voice changes while he or she is reading, and they tend to use the opportunity to visualise their own story. Reading aloud has also been shown to improve children’s comprehension, as the teacher will use “think-aloud” strategies (metacognitive in nature) to teach the children how to incorporate a skill while reading. After reading the story at least twice, learners are asked to retell the story in their own words. Visualisation does support them when they are paraphrasing the story. Initially, learners will try to repeat the story verbatim. This mode of summarising (Schreuder, 2010) often leads them to having difficulty finding the main idea in a text, details of the main characters and identifying the beginning, middle and end of a story. Therefore, teaching learners to use their own words and then including the main ideas and characters in the story will support learners in learning how to summarise and make connections.

Prediction implies learners making connections with their experiences. Making connections (Schreuder, 2010) is a cognitive strategy and as adults we can associate with a variety of experiences if we see, hear or smell something that has previously affected us. We can put ourselves back into those situations because we are mentally able to connect with it. We need to teach learners how to make these connections by asking questions or presenting contextual clues about the text that attempts to tap into their schema or prior knowledge (Liu, 2015) to enable them to make associations with it. This process can support them in expanding these connections (Keene & Zimmerman, 2007). We constantly need to make children aware of connections that they can make with the text, even from Grade R. This metacognitive strategy should be modelled and taught until the child starts using it on their own (Blakey & Spencer, 1990).

Clarification is a problem-solving and metacognitive skill that children need to be taught for them to make sense of the text and of instructions given to them (Schreuder, 2010). Accommodating problem-solving and metacognitive strategies could assist and support learners in becoming self-directed in terms of reading. In this regard, this emphasis of learning being “task- or problem-centred” ensures that the learning is self-directed rather than teacher-directed (Knowles, 1975, p. 20).

Multimodal modelling is a strategy that can be effective in assisting learners with comprehension: as learners understand and comprehend using multimodal modelling by means of technology, they become more self-directed learners (Sankey et al., 2010). Although there appears to be a gap in the literature for younger learners regarding SDL, learners in the Foundation Phase will be encouraged to set goals and assess their own learning outcomes. Sankey et al. (2010, p. 853) state that “multimodal learning environments allow instructional elements to be presented in more than one sensory mode (visual, aural, written and kinaesthetic)”. Utilising the multimodal aspect, further opportunities could potentially be provided to learners to achieve their set goals.

According to Wong (2013, p. 319), “the proliferation of mobile technology has opened up or enhanced opportunities for more personalised, self-directed learning experiences beyond the four walls of classrooms”. He further states that SDL is considered the preferred result and that learning needs to be facilitated to achieve or attain the set goals (Wong, 2013). As such, a multimodal mobile approach fostering SDL is relevant for this study and for 21st century teaching and learning.

Teaching in the 21st century requires broader strategies that recognise communication and collaboration (Tarling, 2018). Teachers must keep abreast with technology and try to incorporate it into their daily teaching activities. Emerging technologies can aid teachers in preparing learners for the future by developing their thinking and cognitive and comprehension skills. Dewey (1916, cited by Turkmen, 2006, p. 71) posited that “if we taught today’s students as we taught yesterday, we rob them of tomorrow”. For this reason, teachers need to look at integrating e-learning and ICT-emergent tools. Emerging technologies are “tools, technologies, innovations and advancements utilised in diverse educational settings to serve varied education-related purposes” (Veletsianos, 2010, p. 17). By using emerging technologies, we have the additional tools to support children to become critical thinkers as well as develop and enhance their creativity. Instead of the teacher only reading aloud to learners, they can utilise the internet and download stories or create e-books so that children can develop their listening skills. Teachers can also model the strategies while learners are listening to the story (Tarling, 2018).

The use of technology can enhance learning but often teachers are not utilising computer software for reading instruction (Howie et al., 2012). Teachers can utilise multimodal reading instruction (Tennent, 2015) through the integration of technology as well as teaching aimed at the learners’ sensory modes to teach comprehension strategies without having to read the

passage to learners. With proper planning and correct use, lessons should be structured to meet the criteria of the intended curriculum.

By incorporating multimodal modelling of the reading comprehension strategies, we will be able to incorporate the learning styles, namely visual, auditory, written, and kinaesthetic (VARK) (Sankey et al., 2010) into our teaching. Through multimodal modelling, I can utilise various scenarios for storytelling, for example by using puppets to tell the story, dressing up as a book character or characters in reading a comprehension passage, utilising pictures and creating a story with learners or listening to stories.

1.4 Research question

This research was guided by the following main research question:

How can multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase assist in improving reading comprehension skills?

In answering the main question stated above, the following sub-questions were explored in this study, as indicated in Table 1.1.

Table 1.1: The sub-questions for the study

Sub-questions for the Study	
Question	Strategy or data collection means
What are the reading comprehension strategies relevant to the Foundation Phase?	Literature
What are district-based officials' and teachers' perceptions of the state of self-directed reading comprehension in the Foundation Phase?	Open-ended questionnaires, semi-structured focus group interview, semi-structured teacher interviews
How can teachers in the Foundation Phase implement multimodal modelling of reading comprehension strategies and foster self-directed learning?	Literature, supplementary sources, e.g. videos, illustrations, texts (aural, visual, gestural), computer applications

1.5 Purpose of the study

Based on the research questions posed above, specific aims were set for this research.

Through this research, I:

- determined from the literature which reading comprehension strategies are relevant to the Foundation Phase;
- empirically ascertained what the district-based officials' and teachers' perceptions of the state of self-directed reading comprehension is in the Foundation Phase; and
- concluded how teachers in the Foundation Phase can implement multimodal modelling of reading comprehension strategies and foster self-directed learning.

1.6 Research design, methodology and methods

1.6.1 Research methodology and design

This research involved a qualitative research design focusing on the in-depth modelling of reading comprehension skills (Cohen et al., 2018; Merriam, 2009). However, due to Covid-19 certain limitations were experienced in terms of the originally planned methodology. The researcher was limited to focusing on the teachers as the learners were excluded. The methodological approach of this research project was qualitative in nature (Maree, 2019). The interest of qualitative researchers is mostly in how people position themselves and their situations and how occupants within these circumstances make sense of their environment through signs, routine, social organisations, social positions and so forth (Nieuwenhuis, 2022). An exhaustive understanding of an issue is offered through qualitative research (Ivankova, Creswell & Clark, 2022).

1.6.2.1 Philosophical orientation

This research was situated in an interpretivist paradigm (Vosloo, 2014). The focus of this paradigm is to understand lived experiences (Cohen et al., 2018). Merriam (2009, p. 9) posits that "the experience a person has includes the way in which the experience is interpreted". Therefore, as the teachers progress at varying levels, I, as the researcher, considered their differences in learning tempo, learning styles and experiences.

1.6.2.2 Sampling strategy

As stated, the research involved a qualitative study, and I used purposive sampling (Cohen et al., 2018). The relevant district nominated schools, and the targeted participants at the schools

were Foundation Phase teachers who voluntarily participated in the research. The information-rich participants were district-based officials such as subject advisors in language and specialists in the Foundation Phase (see Table 1.1). Purposive sampling is a type of non-probability sampling where members of a target group are easily accessed by the researcher. (Elliott, Fairweather, Olsen & Pampaka, 2016). However, care was taken to eliminate any coercion or influence of research participants due to the existing power relationship between the district director, principal and Foundation Phase teachers.

For the sampling strategy, I used purposive sampling (Cohen et al., 2018). Purposive sampling refers to where the population is selected for a specific purpose in mind (Maree, 2016). Purposive sampling is an essential element of qualitative research (Cohen et al., 2018).

Table 1.1: Number of research participants

No. of participants approached	60
No. of participants signing up	25
No. of questionnaires sent	12
No. of questionnaire responses	2
No. of participants interviewed	9
No. of participants participating in Intervention series	6
No. of experts in the field approached	10
No. of experts in the field signing up	2

1.6.2.3 Data collection instruments

Qualitative instruments were used in this research. The data collection sources, namely open-ended questionnaires in Google Forms, focus-group discussion and semi-structured interviews on Zoom that were recorded, were used to determine the best data and yield the best information with which to answer the research questions.

A questionnaire was sent to teachers to ascertain their understanding of teaching reading comprehension skills and their interpretation of these skills in the CAPS documents. Focus-group interviews took place with information-rich participants from the provincial education department (WCED) to determine general teaching practices within the broader context of this research.

I used open-ended questionnaires for educators, which I created myself and had validated by experts in the field (Maree, 2019) and focus-group interviews with information-rich participants, such as curriculum and learning support advisors, that took place telephonically or via Zoom, and which were recorded and transcribed. The focus-group interviews gave me insight into what reading practices takes place at other schools and how comprehension was incorporated. Open-ended questionnaires gave the participants an opportunity to answer based on their complete knowledge, feelings and understanding. The teachers' ($n = 60$) open-ended questionnaire was used to gain insight into the teachers' knowledge by the types of questions asked of modelling reading comprehension strategies and supporting learners to become self-directed in their learning. The researcher kept a reflection journal of the research process. The reflection journal was used as a source for qualitative analysis.

1.6.2.4 Methods of data analysis

All qualitative data were analysed inductively using Tesch's eight steps in the coding process (Creswell & Creswell, 2018) to analyse the semi-structured interviews, focus-group interviews and questionnaires and to search manually for common patterns throughout the data. According to Merriam (2009), the unit of data within which any meaningful word or phrase correlates with another unit of data is honed and fine-tuned as the analysis proceeds. Trustworthiness was ensured through two cycles of coding and control by my supervisors. To ensure internal validity or credibility, the findings were be corroborated with the research participants by means of respondent validation after the analysis (Merriam, 2009). Finally, I also made use of an audit trail, which "in a qualitative study describes in detail how data were collected, how categories were derived and how decisions were made throughout the inquiry" (Merriam, 2009, p. 223).

1.7 Ethical considerations

Ethical clearance was sought from the Faculty of Education Research Ethics Committee (EduREC), as this was low-risk research as no minors are involved. Permission was requested from the Western Cape Education Department, district directors, as well as the principals of

the schools and goodwill permission from the relevant school governing bodies. Informed consent was also requested from participants.

Confidentiality and privacy were ensured throughout the process while acknowledging the limitations in terms of confidentiality with focus-group interviews. Pseudonyms were used for the teachers and the schools. Participants were allowed to withdraw from the study at any point. All data were handled confidentially. Data would be stored securely for a period of five years after the completion of the study. Throughout the process, the power relationship between the teacher and myself was addressed by means of using neutral individuals from the school structure during certain steps. The school secretary was asked to be the neutral person and they liaised with the teachers to gain their permission. The results of the research will be available to the research participants on request when the study has been completed.

1.8 Intervention series

The intervention sessions took place via an online programme with the teachers. Freire (1970, cited by Serafini, 2014, p. 3) suggested that for children to be successful, they need to learn to read the world before they learn to read the word. This is a profound statement as we currently find ourselves in an era of technology where we need to learn to read not only visual cues but also typography. We need to make children aware not only of visuals and visual cues in their surroundings, but also the language that accompanies it. For this reason, when children start school, we use Big Books with more pictures than typography to develop their multimodal reading skills.

According to Moore and Hall (2012), “the interactive approach to reading aloud exemplifies Vygotsky’s emphasis on the zone of proximal development; in sharing a story this way, the adult scaffolds the child’s experience, leading them to an understanding they would not be able to achieve on their own”. By sharing read-aloud stories, teachers can model the comprehension strategies and allow the learners to actively engage with each other and discuss the story. With teachers allowing learners to actively participate in the lesson, the learners will be constructing their knowledge during the lesson. By using comprehension skills in a social manner (Donald, Lazarus, & Moolla, 2014) where learners can discuss the different skills that are being covered with each other, they will be able to understand and work through the skill and develop their critical thinking skills. The value of Vygotsky’s social constructivism is that it allows children to build their own knowledge (Donald et al., 2014).

Later research shows that Vygotsky's constructivist theory is still relevant today as teachers engage children in discussions of a social nature when dealing with a comprehension text. Children are encouraged to participate in these discussions, even the ones who struggle, to construct their personal meaning of the text. McLaughlin (2012, p. 433) states that the "social constructivist nature of comprehension suggests that readers refine their understanding by negotiating meaning with others".

The nature of the intervention was determined based on the literature review and the first part of the empirical investigation. However, in terms of preliminary planning, I envisaged teachers using read-aloud stories and modelling think-aloud strategies (Tennent, 2015) to assist children in developing their skills when dealing with the text. I aimed to have teachers integrate emerging technologies, as it would assist them in teaching the skills that learners need to develop. This would enable them to record a passage, pause it during the lesson and model the comprehension strategy and create e-books with audio enhancement utilising comprehension passages that learners can listen to and integrate the reading comprehension skills that are modelled. In this manner, teachers would attempt to foster excitement and retain the learners' attention. Discussing the story and sharing their ideas can play a role in children not only looking at it in a literal manner, but also including its figurative meaning and enhancing or developing their reading comprehension (questioning and answering, predicting) skills.

The intervention series was informed by the literature study and the research questions. The intended online training sessions were, in part, based on the AHA-Funda Literacy Intervention series (Hanekom, Uys, Spangenberg, & Louw, 2010), as it took teachers through the different levels of reading, and it supported them in developing their learners' reading comprehension skills. This programme is graded and is divided into four levels that develop reading comprehension skills. Each level starts with a discussion using a picture, book, poem, rhyme or object (level zero) relating to the topic/theme. Through these discussions, teachers could attempt to tap into the learners' prior knowledge, as some of them may have knowledge of the topic that they are able to share (Tennent, 2015). Having these discussions before beginning a new level and/or theme creates a context for the learners to make connections. Utilising levels will accommodate all learners even though they may be at different developmental stages in their learning and it will include learners with barriers to learning. The reasons for the levels are to accommodate all the learners in the class. To begin at the lower levels and then move up to the higher levels will allow all the learner's learning needs to be accommodated. Their reading comprehension skills will be further developed using a multimodal ensemble. A multimodal ensemble is a "cohesive entity that uses a variety of

semiotic resources, including written language, visual images and design elements to represent and communicate ideas and meanings” (Serafini, 2014, p. 172).

1.9 Contribution of this study

This study ties in with the existing research done within the SDL Research Focus Area’s NRF-funded project, *Multimodal multiliteracies in support of self-directed learning*, and as such will contribute towards the generation of new empirically-based knowledge regarding self-directed learning in terms of the wider language learning context.

I would like to ascertain if a specific reading comprehension intervention series is able to assist teachers in the Foundation Phase to improve the answering of inferential and evaluative questions. I would also like to see teachers in the Foundation Phase sharing their knowledge with the teachers in the higher grades for the teachers to continue in the higher grades with the various types of texts that they need to read and understand across the curriculum. In practice, this research could lay the basis for a future short course developed to empower teachers to model reading comprehension strategies.

1.10 Research limitations

Due to Covid-19 the researcher was denied access to the learners and therefore had to work with teachers (cf. Table 1.1). The conclusions of this research are not generalisable and the results are limited to the selected populations of information-rich participants from the provincial education department and teachers. However, all these limitations and context-specific elements are described and considered in the analysis throughout the research and in Chapter 6 the limitations are further elaborated on.

1.11 Summary

The chapter outlined the research problem and statement, the research design, its philosophical orientation, and the data collection instruments and analysis methods. The purpose of the study is based on the research question guiding this research, namely “How can multimodal modelling of self-directed reading comprehension strategies improve reading comprehension in the Foundation Phase in schools in the Western Cape?”. The following chapter will cover the literature of reading, reading comprehension and listening.

CHAPTER 2: READING, READING COMPREHENSION AND LISTENING

2.1 Introduction

The research question guiding this research is “How can multimodal modelling improve the teachers’ knowledge of reading comprehension skills in the Foundation Phase while fostering self-directed learning (SDL) in selected schools in the Western Cape?” There is a common thread that runs through reading, reading comprehension and listening, and that is that each one is dependent on the others. When we read, we retrieve information via our eyes; when we listen, we retrieve information via our ears, for example listening to instructions (however, writing is long-lasting and hearing is temporary (Tennent, 2015)). However, without listening skills, the child is unable to build a good vocabulary base, acquire prior knowledge and develop language comprehension. Listening skills support the child when they begin to identify the orthography of words, leading to reading. Multimodal modelling (see Chapter 3) is teaching comprehension and reading strategies by showing learners what to do and learners listening to the teacher and then following the teacher’s example (Hobsbaum, Gamble, & Reedy, 2006) by utilising either online tools such as e-readers, listening to pre-recorded stories, looking at pictures and using printed books. It is this common thread that has led me to ask questions about the following issues: how the multimodal modelling (see Chapter 3) of reading comprehension strategies can assist teachers in the Foundation Phase to improve their knowledge of reading comprehension skills; which reading comprehension skills are relevant in the Foundation Phase (see Chapter 1); what the state of self-directed reading comprehension is and whether a multimodal approach to teaching reading comprehension will improve reading comprehension. Language comprehension development provides the backbone for the child to advance in reading comprehension once the child can read (Bell & McCallum, 2016; Oakhill et al., 2015; Watkins, 2018). For listening, the following aspects will be discussed: the impact of listening in language development; the acquisition of new knowledge and increase in prior knowledge (Kendeou & O’Brien, 2018). Multimodal modelling shows learners the process of how a strategy using e-readers, pre-recorded stories, or a storybook is employed by a teacher and the learners then follow her/his example. This section is discussed further in Chapter 3, but first we need to see how reading, reading comprehension and listening all fit together in the curriculum.

2.2 Contextualisation

According to the DBE (2011a; 2011b), listening and speaking are two of the main skills that teachers need to concentrate on in Grade 1. In CAPS First Additional Language (FAL), the DBE (2011b, p. 15) posits that “children need to develop a strong oral foundation in their additional language”. Listening is the precursor to reading (DBE, 2011b) and reading must be taught (Pretorius & Murray, 2019). Through the exploration of this thread, the researcher will be exploring various parts of reading, reading comprehension and listening that bring these concepts together. Definitions from multiple researchers are considered for reading, reading comprehension and listening. For reading, the elements thereof form an important part in the bridging between reading and reading comprehension. Different methods for teaching reading will then be discussed. Phonemic awareness, which plays an important role in listening and reading as well as in teaching, including the seven sub-types, will highlight the different parts of word learning. Thereafter, the simple view of reading, schema theory and social constructivist learning theory are reviewed. This section ends with a discussion of teaching reading strategies.

Reading comprehension incorporates both listening and reading. Vocabulary and the importance thereof are examined thereafter. A profile of poor comprehenders is outlined. A table with the various models of comprehension researched by academics is described. Reading comprehension strategies that will be discussed during the research phase will then be examined. Listening and listening comprehension plays a pivotal role in reading comprehension, as the relationship is mutually dependent.

The development of listening skills is then examined. Finally, a brief overview of barriers to listening is set out.

Research regarding reading will be covered in the next section.

2.3 Reading

2.3.1 The need for reading

The Progress in International Reading Literacy Study (PIRLS) of 2016 determined that around 78% of South African Grade 4 learners in this study did not reach the international benchmark¹, which is 500 (see footnote 1). This means that our current Grade 4 learners do not have the

¹ The international benchmark is a point of reference by which the PIRLS results can be gauged.

necessary basic reading skills at the end of Grade 3 (see Chapter 1). This gap in reading as part of their learning may cause the gap to continue to grow as they progress to higher grades. Therefore, “learning to read” in the Foundation Phase is of great importance to allow success in the higher grades for “reading to learn” (Howie et al., 2016; Tennent, 2015). The elements of reading not only comprise of phonemes and graphemes but are also represented by components of meaning in the form of morphemes, words, phrases, sentences, and so forth.

It is emphasised that these elements of meaning will play a crucial role in proficient reading comprehension (Woolley, 2011). The sections that follow discuss the following critical concepts: the definition of reading, stages of reading, characteristics of the reading process, the reading process, teaching reading, the bottom-up approach, the top-down approach and the interactive approach. Teaching reading from as young as possible is beneficial to the learner at a later academic stage and the sections that follow may contribute to achieving the effective early teaching of reading.

2.3.2 Definition of reading

There is a variety of definitions and explanations for what reading is. Weaver (2002, p. 45) states that reading is “thinking”, “problem-solving”, “discovering”, “the ability to make sense of or give meaning to text by decoding the letters that makeup words and then stringing the words together for meaning” and “to acquire knowledge”.

A simple definition posited by Bell and McCallum (2016, p. 16) is as follows: “reading is getting meaning from print”. Without gaining meaning from the text, reading has no meaning, and all that the child can see are shapes and forms that are meaningless. Reading comprehension is not the capacity to answer specific types of questions; rather, it is the ability to make sense of the information in the text, to benefit from the text and to overcome the difficulties of a text (Shanahan, 2020). It is also a multifaceted occurrence, as it consists of many components that work together in a complex arrangement (Pretorius & Murray, 2019).

According to Tønnesen and Uppstad (2014), there are a variety of sub-skills that are required for reading. Some of these sub-skills include letter-sound recognition, decoding, word recognition and vocabulary (Sebole, Khosa-Shangase & Mophosho, 2019; Pretorius & Stoddelsma, 2017). These sub-skills will be discussed in the sections below. Although the act of reading is a single action, we must have mastered many sub-skills to read. The sub-skills are essential for reading proficiently, which is in turn essential for all learning (Hughes & Talbott, 2017; Bell & McCallum, 2016; Tennent, 2015; Weaver, 2002). According to Pretorius

and Murray (2019), reading is all about comprehension. Whether we are reading signs, a storybook, graffiti on a wall, a novel or a chapter in a textbook, the aim of reading is to understand what we are reading.

Snow et al. (1998, p. iv) suggest that “reading should be defined as a process of getting meaning from print, using knowledge about the written alphabet and about the sound structure of oral language for the purpose of achieving understanding”. This means that to gain meaning from print, a variety of processes should be in place. Calkins (2001, cited in Bell and McCallum, 2016, p. 16), defines reading as “nothing more or less than thinking, guided by print”. In sum, there seems to be a global understanding that the intention of reading is comprehension, to gain meaning and acquire knowledge.

Recognising previous definitions (Bell & McCallum, 2016; Snow, Burns & Griffin, 1998; Connors-Tadros, 2014; Tønnesen & Uppstad, 2014; & Weaver, 2002), a working definition of reading for this study is as follows: *reading is the process of creating meaning through the active collaboration between the reader’s current knowledge and the circumstance of the reading situation; reading is using meaning as appropriate to the type of text, purpose, and situation (Connors-Tadros, 2014); reading is gaining meaning from print, thinking while reading, solving problems during the act of reading and acquiring knowledge.*

Comprehension is the aim of reading and listening: it enables us to acquire information, experience and be aware of other (fictional) worlds, communicate successfully and achieve academic success. Our goal when reading (or listening to) a text (or discourse) is usually to derive an overall interpretation of the situation described, rather than simply to retrieve the meanings of individual words or sentences. This goal is reflected in a factor common to all major theories of reading comprehension, which is that good comprehension involves the construction of a representation corresponding to the circumstances described in that text, a mental model (Johnson-Laird, 1983) or a situation model (Kintsch, 1998) (Cain & Oakhill, 2007, pp. ix, 30–33). However, to attain comprehension, various steps must be taken before the child is able to read. The researcher will, however, only cover a few of the steps. The steps to help the child read is to teach reading by using either the bottom-up, top-down, interactive or balanced language approach; incorporating the elements of reading and teaching reading strategies.

2.3.3 Stages of reading

The four possible stages of reading, according to Tracey and Morrow (2012), begin before learners attend school and continue once they start school. According to Gehsmann (2012), these four stages are the emergent, transitional, intermediate and advanced. According to Adler (2022), the four stages of reading are “elementary (basic) reading, inspectional reading (the art of skimming systematically), analytical reading (more complex and systematic) and synoptical reading (the most difficult level of reading)”. Lynch’s (2019) list of the five stages of reading is the emergent pre-reader, the novice reader, the decoding reader, the fluent, comprehending reader and the expert reader. Lynch (2019), however, also allocates an age group to each stage of reading. To be better familiar with learners and support their development from their level, it is important to know the stages of literacy development (Gehsmann, 2012).

In the emergent stage, learners’ behaviours in writing involve “scribbling and drawing followed by drawing pictures” (Gehsmann, 2012, p. 6). Learners will often “pretend read” using words they recall from books, for example “Once upon a time”. Soon thereafter, they learn graphemes (letters), phonemes (sounds) and the alphabet. They also begin to recognise that words are written from left to right. This stage typically occurs at preschool and Grade R (Gehsmann, 2012).

The transitional phase usually happens around Grade 1 and 2. At this point, learners are specifically thinking left to right on a page and sounding out single graphemes. They then slowly begin to put two and three-letter words together. Learners should begin decoding and blending words. They also achieve understanding of “vowel patterns” and see how combining letters relate to phonemes (sounds) (Gehsmann, 2012, p. 7). When reading has become fluent with single-syllable words, learners begin reading with increased expression and comprehension.

With the intermediate stage, learners understand word patterns within words (for example that “cream” and “steam” make the long “e” sound) and gain further awareness of multi-syllabic words (for example “but+ter+fly” and “cro+co+dile”). Learners can now decode “longer words” for reading and writing. At this phase they also learn how prefixes and suffixes change the meaning of the root words (for example kind – unkind – kindly). With their increased awareness and insight, the intermediate reader engages in greater independent reading and writing, especially with interactive and read-aloud instruction (Gehsmann, 2012). At this stage, learners can attempt to become self-directed in some of their learning.

At the advanced and skilled/proficient reader phase, learners have the knowledge of alphabetic patterns and the relationship of word meaning. Grade 3 learners are typically expected to be at this stage of reading (DBE, 2011a). They understand that words connected in spelling are often associated with meaning, even though the sounds may differ. In this stage learners should understand that root words that are changed with affixes all share the same basic meaning, which also clarifies the spelling similarities. The knowledge learners have gained from this level onwards is continued throughout the remaining grades and through tertiary education and beyond (Gehsmann, 2012).

2.3.4 Characteristics of the reading process

As we reviewed the stages of reading in the previous section, the aim of this section is to take a brief look at the most pertinent characteristics of the reading process. The CAPS English Home Language and First Additional Language documents (DBE, 2011a; 2011b) do not provide a set guide of the reading process for teachers. Instead, it describes the assessments that need to take place. This is because CAPS is assessment-driven (De Lange, Winberg, & Dippenaar, 2020). The only processes that are mentioned in CAPS are for Grade R learners and the process of writing in the Foundation Phase.

Kress (1997, p. 54) postulates that “reading is a changing action whereby the reader must make sense of what is being read by utilising their prior knowledge and incorporating their interest in the text”. This changing action also means that what is being read is internalised, and as it is a changing (transformative) action, the reader uses their own experience and interest to bring understanding. It is also an interaction between the reader, the text and the author that aids in comprehending the text. Although reading is a transformative action, the reader can take in the “form of the text” (Kress, 1997). This means that we incorporate our previous experiences, our interests, and our prior knowledge into the text and this is how we can comprehend the text.

Another characteristic of reading identified by Mahdavi and Tensfeldt (2013, p. 84) is that “without the ability to read the words, there is no ability to understand the message of the whole”. They continue by stating that the effective use of stories and books that are read aloud to children essentially supports the foundation for developing comprehension. Reading stories aloud develops children’s listening skills, which leads to them asking questions, and fosters comprehension. Reading stories aloud also supports children in piquing their interests and incorporates their previous knowledge. “These read-aloud stories, coupled with explicit

comprehension strategies, were demonstrated to increase students' ability to understand the books" (Mahdavi & Tensfeldt, 2013, p. 84).

2.3.5 The reading process

According to Shaywitz (2003, cited in Bell & McCallum, 2016, p. 42), unlike language development, reading is an unnatural process. For that reason, when children start in the Foundation Phase, phonological awareness is important as children learn to manipulate and identify units of oral language. In the beginning, as learners need to be learning and pronouncing single sounds (consonants), vowels, initial/final sounds and onset/rime, then learning about word families (for example "c-a-t = c-at = cat"), also referred to as consonant, vowel, consonant (CVC) words. Here, phonemic awareness plays an important role in focusing and manipulating single sounds (phonemes) in spoken words (DBE, 2011a; Tennent, 2015). After learning the word families, they are exposed to sight words or high-frequency words. These are words that are often seen in a text, but it is often difficult to sound out, for example "the", "this", "it", "my", "there", and so forth. Once the learners have learnt some of the CVC and sight words, they then begin to gain meaning from the printed page (DBE, 2011a; Tennent, 2015). In addition, learners' background knowledge, interest in the text and assessing the author's thoughts add to their ability to gain meaning from the text (DBE, 2011a; Tennent, 2015, Pretorius & Murray, 2019). These are some of the aspects, mentioned in the previous sentence, that support when they begin reading and teachers are teaching it.

2.4 Teaching reading

According to DBE (2011a), there are five components to teaching reading. These are phonemic awareness, word recognition (sight words and phonics), comprehension, vocabulary and fluency. There does, however, appear to be some confusion as to the aspects that are needed for teaching reading within CAPS. Comprehension, vocabulary and fluency only follow once children have become skilled at phonological and phonemic awareness and word recognition. Pretorius (2014, p. 72) suggests that "all children need to be explicitly taught to read and what happens in the classroom has critical consequences for how well children learn to read". The four main approaches to teaching reading are the bottom-up or phonics approach, and the top-down approach, also referred to as the whole language approach, the interactive approach and most recently, the balanced language approach. These approaches will be briefly discussed in the following sections.

2.4.1 Bottom-up approach

Owens (2012) postulates that the bottom-up approach to teaching reading concentrates on interpreting print into speech. He also states that the learner must be able to “segment or divide each word into phonemic segments and learn the corresponding alphabetic code” (Owens, 2016, p. 354). This means that as the child’s orthography and word recognition become more involuntary, it is associated with expanding language and increasing knowledge of text (Owens, 2016, p. 354). According to Block (2001, cited in Maddox & Feng, (2013) the phonics approach uses the bottom-up approach and it “focuses on word analysis skills” (p. 4). On the other hand, according to Kibui (2012), this approach takes the viewpoint that the “text defines the act of reading” (p. 31). In the Foundation Phase teachers utilise various texts during shared reading (DBE, 2011a). These are Big Books with enlarged text, text on a poster and pictures (graphical texts). The text can be fiction or non-fiction. The selected text should increase in length and complexity across the grades (DBE, 2011a, p. 11).

The text can also refer to the child’s ability to identify the signs and symbols that surround them in the world prior to starting school by sight (Tennent, 2015). For example, the two golden arches of McDonald’s are related to the child’s ability to interpret symbols and associate semantic value to the visual cues, thus making meaning from the symbols. Written text is not the only method that children interact with. The text may be multimodal (discussed in detail in Chapter 3) in nature, for example Big Books (see Chapter 1), comics, graphic novels, podcasts and films. The shared reading done by teachers in the Foundation Phase using Big Books supports or assists learners to become independent readers. As teachers, we want learners to become independent in their reading and less dependent on us.

The qualities of a text have a significant impact on comprehension (Snow, 2002). During reading, the learner forms various images of the text that are important for comprehension. With the introduction of computers and multimedia documents, the definition of comprehension and reading has had to change and adapt (Snow, 2002). Even though the text has evolved, learners still need to build up understanding before reading can begin.

Readers build up understanding first, and need to be taught letter-sound relations (individual sounds or phonemes) and then to sound and say the words, with a certain number of perceptual skills intact, of which visual perception is rather important. The top-down approach turns the bottom-up approach on its head (Snow, 2002; Tennent, 2015; Landsberg et al. 2016).

2.4.2 Top-down approach

When reading, we do not first identify the phonemes and letter-sound associations, as it does not trigger the reader's prior contextual or background knowledge (Kibui, 2012). "Whole language (also known as whole-word, look-see or sight word) can be described as teaching reading contextually and holistically through the use of content-rich literature and a print-rich environment" (Maddox & Feng, 2013, p. 3). This approach states that the top-down method centres on gaining meaning from the text (Owens, 2012). Learners are given a complete text and they are provided support to read the words in their entirety as well as the sentences, giving the words context without sounding out the words. According to this approach, the readers become progressively more mindful of the "phonemes and the letter-sound associations" (Landsberg et al., 2016, p. 386) while reading. A skilful reader uses "syntactic and semantic clues to predict upcoming words and phrases" (Landsberg et al., 2016, p. 386). This in turn raises their reading speed and fluency. They are unable to do this in the bottom-up approach; therefore, the two approaches were combined to create the interactive approach (Owens, 2012).

2.4.3 Interactive approach

Due to shortcomings in the bottom-up and top-down approaches, the interactive approach, also known as the combined approach, has become prevalent. The interactive approach is deemed the most all-embracing representation of the reading process (Hedge, 2003). Rumelhart's (1977, cited in Kibui, 2012) theory of reading is based on an interactive model that incorporates the top-down and bottom-up models "to explain how an efficient reader interacts with the print" (p. 39). This approach prefers a code-emphasis and meaning-emphasis approach and it uses practices from both the above-mentioned approaches (Coltman & Place, 2013; Gunning, 2010, cited in Landsberg et al., 2016, p.368).

The interactive approach begins with the visual input, i.e., what the learner sees. This is either followed by the word (bottom-up) or a letter (top-down) (Rumelhart & McClelland, 1982). According to Rumelhart and McClelland (1982) the processing of material in reading is presumed to consist of a succession of levels. There is, throughout the processing of information, a constant exchange between the words and the letters. It is important to remember that listening also plays a role in the interactive approach as learners need to use visual and auditory cues (Rumelhart & McClelland, 1982). The dialogue that occurs in the visual and auditory cues can include the author (Hedge, 2003). The balanced language approach incorporates the bottom-up, top-down and interactive approaches.

2.4.4 Balanced language approach

The balanced language approach (BLA) (Botha, Hugo, & Mthembu, 2008) is both teacher-led and learner-centred in its approach. Teacher-led is when the teacher takes the lead during the activity or lesson. Learner-centred, on the other hand, is when the focus shifts to the learners as they engage in the activity through their interaction with each other and the teacher by generating and answering questions, discussing connections they made with the text, making inferences or discussing their predictions. BLA is based on the use of texts (for example Big books, textbook pages, storybooks, pictures and poems) and it encompasses and integrates listening, speaking, reading and writing (Botha, Hugo, & Mthembu, 2008). BLA balances explicit teaching and learner practice for there to be daily teacher-led and learner-centred activities and ensures that learners read and write daily. One of the main purposes of BLA is for learners and teachers to attain success since this motivates them. Bottom-up and top-down approaches appear to lack the holistic view of the child's learning, whereas BLA incorporates this holistic view. BLA attempts to move learners to become independent readers and writers through meticulous scaffolding (Vygotsky, 1981) and support (Botha et al., 2008). As BLA encourages learners to become independent readers, it also fosters SDL. BLA also accommodates different learning styles, namely visual, auditory and kinaesthetic. It is quite beneficial in multilingual classes, as learners can expand their vocabulary by engaging in discussions and improving their memory skills by recalling what was read. BLA also supports the development of phonemic awareness (Botha et al. 2008).

2.5 Phonemic awareness

Phonemic awareness is the ability to observe, consider and apply single sounds with spoken words. Phonemic awareness plays a significant role in the understanding that every single vocalised word can be considered as a series of phonemes (Bell & McCallum, 2016, p. 44). According to Bell and McCallum (2016, p.44), “[b]efore children learn to read print, they need to become aware of how the sounds in words work”. According to the DBE (2011a), CAPS Home Language for Grade R to 3:

[...] phonemic awareness is recognising that speech consists of a sequence of sounds and being able to recognise these individual sounds, how they make words and how these words can make sentences. Developing this awareness should begin early in Grade 1. (p. 14).

In multilingual classes, some learners have not been exposed to developing their phonemic awareness, thus leaving the teacher and their peers to assist them in developing it. There are seven categories of phonemic awareness (see Table 2.1) below, namely phonemic isolation, identity, categorisation, phoneme blending, segmentation, deletion and onset-rime manipulation (onset – the part before the vowel; rime – the vowels) (Bell & McCallum, 2016, p. 46; DBE, 2011a).

Table 2.1: Seven categories of phonemic awareness (adapted from Bell & McCallum, 2016, p. 46; DBE, 2011a, p. 14–15)

Seven Categories of Phonemic Awareness		
Category of phonemic awareness	Description of category	Possible activities and examples
Phonemic isolation (isolation activity)	The learner needs to identify the sound at the beginning of the word	What do you hear at the beginning of <i>flag</i> ? (/f/)
Identify the phoneme	This necessitates learners to identify the beginning sound of different words	What is the first sound you hear at the beginning of these words? <i>snake/sand/sip</i> (s)
Categorisation of phonemes	Recognising the odd sound in a sequence of three or four words	Which word does not belong or is different? <i>cat, cap, sun</i> (/sun/)
Phoneme blending	This requires the learner to listen to a series of separately spoken sounds and join them to form an identifiable word	Which word would you have if you put the following sounds together? /sun/ny/ (blending syllables); /str/a/p/ (blending phonemes); /str/ain/ (blending onset and rime)
Segmenting phonemes	This necessitates the learner to break a word into parts by clapping, tapping out, counting the sounds or by pronouncing and placing a marker for each sound	How many phonemes in <i>dog</i> (3: /d/o/g/); <i>spoon</i> (3: /sp/oo/n/)? (separating phonemes) How many syllables in /stã/ble/? (separating syllables)

Deleting phonemes	It requires the identification of the word remaining after a phoneme has been removed	My word is “ <i>stirfry</i> ”. What word is left when I remove the word “ <i>stir</i> ”? (“ <i>fry</i> ”) (syllable deletion) Say the word “ <i>Pete</i> ” without the “ <i>p</i> ” (eat) (phoneme deletion) Say the word “ <i>send</i> ” without the “ <i>s</i> ” (end) (onset deletion)
Manipulation of onset-rime	This “requires isolation, identification, segmentation, blending or deletion of onsets (the single consonant or blend that precedes the vowel in a syllable) or rimes (the vowel and following consonants)” (Bell & McCallum, 2016, p. 46). It incorporates all the above-mentioned categories.	e.g., <i>str-ing</i> ; <i>d-ump</i> ; <i>st-op</i>

2.6 The elements of reading

Various fundamentals must be in place before reading can take place. For meaning to take place (see Figure 2.1), the following elements are required: morphology, phonology, orthography, semantics and, for African languages, morphosyntax. These elements will be explained below (see Figure 2.1).

2.6.1 Morphology

Morphology is the “study and description of the meaning components of words” (Oakhill, Cain, & Elbro, 2015, p. 67) and it is related to the inner structure of words (Owens, 2016).

Morphology is about the structure of words (Spencer, 2017). Part of this internal structure is what learners need to understand, remember, and eventually master to gain meaning from a text. To teach the internal structure of words, one begins with the smallest unit of the word, namely morphemes: roots, prefixes, suffixes and inflections, for example *mis/lead/ing*. The same root morpheme occurs in numerous dissimilar words, for example *mislead, leads, leading, leader*, and so forth. Owens (2016) states that there are two varieties of morphemes, namely free and bound morphemes. Free morphemes are autonomous and can stand on its own, for example *cat, happy, small* (Owens, 2016). Bound morphemes cannot function autonomously, as they are syntactic markers (Owens, 2016). They must be connected to a free morpheme, for example *dogs, kindness, smallest* (Owens, 2016). By learning one morpheme, a learner can decipher and understand several different words (Oakhill et al., 2015). Therefore, “teaching morphology to children has substantial outcomes on the advancement of vocabulary and reading comprehension” (Oakhill et al., 2015, p. 66).

2.6.2 Phonology

Phonology relates to the mental representations of sound or “sounds and signs of language” (Van Oostendorp & Van Riemsdijk, 2015; Willingham, 2017). Phonology also studies how sounds are arranged (speech sounds) and used in languages. Phonology analyses the sound patterns of a language by determining which phonetic sounds are significant and it explains how these sounds are interpreted by the native speaker. Phonology governs the rules of structure, division and arrangement of speech sounds or phonemes and the shape of syllables. A variety of phonemes are active in each language (Owens, 2016).

2.6.3 Orthography

Orthography is the written representation of how words are spelled. It is also known as the “visual representation of words” (Willingham, 2017, p. 87). According to Bell and McCallum (2016, p. 48), orthography is paying attention to “how words look”. “Orthographies that do not have a one-to-one relationship between letters and sounds are known as opaque orthographies” (Pretorius & Murray, 2019). English, French and Portuguese have opaque orthographies. Afrikaans and other African languages have transparent orthographies, as they have a clear one-to-one letter-sound relationship (Pretorius & Murray, 2019, p. 19).

Orthographic representations develop through reading practice. The process of building orthographic representations happens over months and years (Willingham, 2017) and therefore it is unfair of teachers to expect learners in the Foundation Phase to have all of these

representations in place, especially if their native language is not the same as the language of learning and teaching (LoLT).

2.6.4 Semantics

Semantics is the study of meaning and mental representations of meaning, words are merely an aspect thereof (Willingham, 2017, p. 74). The mental representations of meaning are of individual words or sentences. Semantics relates to the meaning of words and sounds (Van Oostendorp & Van Riemsdijk, 2015). Landsberg et al. (2016) posit that semantic understanding is essential in learning to read. When reading or listening to a story, the child tries to make connections with their existing knowledge or create new frames of reference that they can refer to at a later stage. Semantic knowledge also refers to the reader's knowledge of understanding of the language of the text. Together, existing knowledge and knowledge of understanding assist the child in creating their own understanding of the text (Landsberg et al., 2016).

2.6.5 Morphosyntax

For African languages, however, we have morphosyntax. Morphosyntax is a combination of morphology and syntax. The distinguishing part of morphosyntax is how "root words, prefixes, suffixes and affixes" (Zuniga, 2017) are used in African languages. The "morpho" refers to the structure of the words and "syntax" refers to the processing of the sentence (text). Syntax also refers to the rules of grammar in language (Fominyam & Radek, 2017; Kibui, 2012) and oral language. Morphosyntax is the study of grammatical or linguistic units that have both morphological and syntactical properties. According to Van Oostendorp and Van Riemsdijk (2015), morphosyntax is the structure of words and sentences.

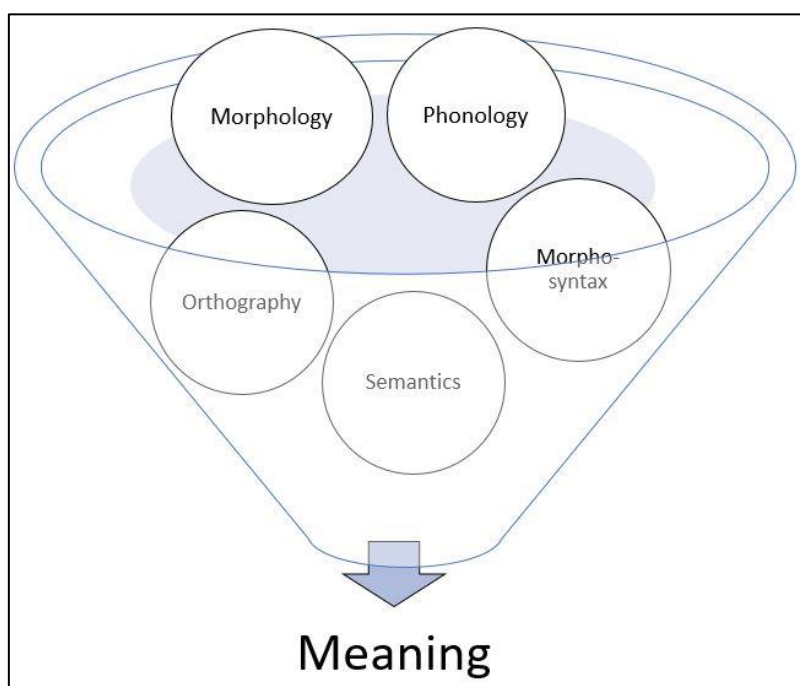


Figure 2.1: Elements of reading (adapted from Woolley, 2011, p. 8)²

2.6.6 Meaning-making elements

For meaning to exist, all the aforementioned elements (see Figure 2.1) need to be in place and/or mastered, as they form part of the cognitive skills and processes that the child needs to develop and for reading with meaning to take place. Poor comprehenders will have weak/poor vocabulary knowledge. The relationship between vocabulary knowledge and reading comprehension is complicated and it develops over time (Oakhill et al. 2015). Thus, it is unfair of teachers to expect all learners to be reading and comprehending at the same level. For this reason, I will be examining and explaining theories on reading in the next section, viz. Simple View of Reading (SVR), Schema Theory, and Social Constructivist Theory.

2.7 Theories of reading

Kibui (2012, p. 5). claims that a “theory of reading must of necessity be a theory of comprehension”: even though there are several theories on reading, I will only cover the simple view of reading (SVR), schema theory, and social constructivist theory in this section,

² Figure 2.1 reproduced with permission from the publisher.

because of their importance in various sources. Although the processes are different, they do share certain characteristics.

Table 2.2: Terminology connected to theoretical approaches to reading (adapted from Verbeek, 2010, p. 15)

Terminology connected to theoretical approaches to reading		
Meaning comes from letter features, sounds and word recognition	Reading is a component of a meaning-making activity	Letter-feature/sound/word recognition is crucial
Bottom-up	Top-down	Balanced language
Part-to-whole	Whole-to-part	Interactive
Grapheme–phoneme recognition	Holistic	Whole-part-whole
Deciphering the code	Whole language	Three-way
Outside-in	Interpreting meaning	Diverse
Statistics-driven	Theoretically driven	
Linear		
Deciphering phonics		Assimilated
Sounding out		Metacognitive
Look-and-say		

2.7.1 The simple view of reading

According to Tennent (2015, p. 4) the SVR is a “psychologically-based framework” composed of two main sections that are key to reading, namely “word recognition (decoding) and linguistic (language) comprehension” (Tennent, 2015; Oakhill et al., 2015). On this premise, it is presumed that children learn in stages and that phonetic knowledge should initially be emphasised (Tennent, 2015). A basic representation of the SVR is decoding x comprehension

= reading (Gough & Tunmer, 1996; Tennent, 2015; Woolley, 2011). This model shows that if the decoding ability is inadequate, reading comprehension suffers as the child has insufficient awareness and intellectual resources to focus on comprehension (Zwiers, 2010).

The SVR does not imply that “reading (or learning to read) is a simple process but rather that it is a simple way of conceptualising the complexity of reading” (Oakhill et al., 2015, p. 2).

The SVR affirms that the connection between word decoding (reading) and language comprehension is multifaceted in nature, so that if an individual demonstrates mastery in word reading ability but poor language comprehension skills, they are probably going to have poor reading comprehension as a result (Tighe et al., 2015, p. 700). The schema theory to some extent explains how memory skills are used in decoding.

2.7.2 The schema theory

The SVR views reading as psychologically based, whereas the schema theory over-arches reading, listening and comprehension (see 2.12.1), as memory skills and prior knowledge are encompassed therein. Making sense of prior knowledge is an important concept within schema theory, as it incorporates social, cultural and psychological terms (Duffy & Israel, 2014). What makes this theory unique is that each child’s schema is individualised. A child’s schema is developed through the experiences they have had and their socio-economic background. The child’s schema is also expanded through books and places that they have been exposed to at home, the library or at school; places such as restaurants and/or fast-food place; their interactions with animals such as cats, dogs, birds and fish; areas they have explored or visited, such as an aquarium, the beach, museums, botanical gardens, and so forth. Even their interactions with family, siblings and the broader community play a role in the development of their schema. No two children will have the same schemata. The information that they bring is “unique to them” (Landsberg et al., 2016c, p. 51).

As it is unique to them, schema theory encompasses pockets of knowledge that the learner can refer to when reading. In schema theory, children need to memorise grapheme and phoneme combinations to read letter shapes and sounds, thereby developing the ability to decode and blend words, sentences and, in due course, the full text. From the schema theory viewpoint, the reader constructs understanding by using mental imagery as a strategy of the read text (Woolley, 2011). These mental images form part of the learner’s schema of references. Reference-making plays a pivotal role in the activation of schemata either when it is input in the initial decoding or in the retrieval of information from memory. According to

Anderson and Pearson (1984, cited in Zweir, 2018), reference-making is contained in four conditions: (1) determining which schema will be initiated in comprehending the text; (2) deciding if a certain related character or article fits into the space of a particular schema; (3) making inferences if there is no concrete information available in the text, and (4) making deductions in the lack of data within a schema. Inference-making thus aids in creating a comprehensible awareness of the text.

2.7.3 Social constructivist theory

The social constructivist theory is not a learning theory and it is the original work of Bandura (1978) and Vygotsky (1978). The original theoretical concept was that “learning occurs and is assisted during social interactions” (Bandura, 1978; Vygotsky, 1978, cited in Woolley, 2011). The social orientation has been complemented by Vygotsky’s (1978) socio-cultural theory of cognitive development. The reason for incorporating the social constructivist theory, even though it is not a learning theory, is that learners bring their knowledge or schemata to the learning process of reading and comprehension.

This theory recognises what learners bring to the task of comprehension through listening and speaking. Teachers take on the role of mediators or facilitators of learning. Teachers model what strategies they want learners to use and practise. As a pedagogical strategy, learners have some control over their learning; therefore, peer learning is easier to encourage amongst learners and learners can become self-directed in their learning. Vygotsky’s (1978) approach is not only applicable to reading, but it also includes listening, speaking and comprehension (Woolley, 2011).

2.8 Teaching reading strategies

Reading aloud to learners in the Foundation Phase supports learners in building their vocabulary and using their background knowledge (if it relates to the story) to develop their reading. Learners also learn the shape of words as they follow the words of the story. Decoding words is often explicitly taught during reading. Teachers need to know how to teach reading and reading strategies for them to identify and support learners who are struggling (Pretorius & Murray, 2019).

Reading strategies need to be explicitly taught. “Explicit teaching develops skills that learners can use to build their reading comprehension” (Pretorius & Murray, 2019, p. 11). According to Hattie (2009, cited in Pretorius & Murray, 2019, p. 11) “research worldwide shows that

explicit teaching is beneficial and effective". Learners gain more from explicit teaching of reading strategies as this will help them as they progress from beginning readers to become expert readers.

Graesser (2007, p. 7) defines a reading strategy as "a cognitive or behavioural action that is enacted under a particular contextual condition to improve some aspect of comprehension". Alexander and The Disciplined Reading and Learning Research Laboratory (DRLRL) (2012, p. 264) define strategies as "intentional, purposeful, and effortful procedures" to solve problems during reading" (cited in Kendeou & O'Brien 2018, p. 15).

As reading strategies are intentional and a cognitive action, learners who have difficulty with reading are often not "encouraged to think about or discuss any of the big ideas embedded within the text" (Woolley, 2011, p. 165). Reading strategies must be taught intentionally and children need to practice the skills taught on a daily basis for them to master it. If this is not done, they will read less, have little reading satisfaction and develop negative attitudes toward reading. Teachers teach reading in big and small groups, a process called shared reading and guided reading. These groups are flexible, as they can be moved around to other groups (Pinnell, 1999). Effective execution of shared and guided reading depends on the selection of suitable texts for the class and each group.

By contrast, learning is more productive when students are encouraged to select their own reading material and to react, ask questions and to seek answers. By promoting this type of focused reading engagement, teachers can help students develop their learning by regulating their own learning, so that their learning becomes self-regulated by controlling the purpose, content and direction for their literacy experiences (Woolley, 2011). Self-regulated learning is a "process of learning that is self-directed in nature" (Linkous, 2021, p. 119) that occurs when learners consider the direction of their learning and how they react to questioning their reading material and seeking answers. By becoming self-directed in their learning, they are using a process where they are establishing control over their learning (Linkous, 2021), directing their own learning as well as being self-motivated in their learning. However, if an incomplete and ineffective repertoire of strategies is promoted by teachers, learners struggle to activate and apply them when needed (Woolley, 2011). What is certain is that effective and explicit reading comprehension instruction can make a difference in the achievement outcomes for learners, including those most at risk (McDonald et al., 2007; Pressley 2002b; cited in Woolley, 2011). The aim of teaching reading strategies is ultimately to facilitate reading comprehension.

Reading comprehension is an important skill that must be developed as it comprises various components.

2.9 Reading comprehension

According to Duke (2005), comprehension is not a single process but rather incorporates numerous components. Reading comprehension is the development of making meaning from what is being read (Oakhill et al., 2016) and it is reliant on numerous cognitive and language processes (Muijselaar et al., 2017). Reading comprehension is important, not just for comprehending text, but for a broader knowledge base, academic success and employment. It is even important for our societal lives because of email, text messaging, text (for example newspapers, books, narratives or expository texts) and social networking sites. Cain and Oakhill (2007, p. ix) postulate that “comprehension is the ultimate aim of reading and listening”. It allows us to gain information, live through and be aware of other (fictional/imaginary) worlds, correspond and communicate effectively and accomplish scholastic success (Cain & Oakhill, 2007). Reading comprehension is a multifaceted task that can occur in varying degrees of complexity, which requires the rearranging of many different cognitive skills and abilities (Oakhill et al., 2015, p. 1). The text may be inferential, literal or applied.

An inferential text refers to when a child needs to infer meaning from the text that was read aloud or the child had read themselves. Here they may use background knowledge to reflect on their inference-making, be it inductive or deductive (Tighe et al., 2015; Tennent et al., 2016). Deductive inferences are those made by examining the text for confirmation of their answer or facts (as in mathematics). Inductive inferences entail that the learner applies their background knowledge as part of their thinking about the text (Tennent et al., 2016). A literal text is when whatever is read is taken at face value or it means exactly as it is stated; it is the “surface meaning of the text” (Tennent et al., 2016). Whether a person is listening to a speech or reading the written text, the goal of comprehension remains consistent: *to understand what is being communicated*. An applied text is putting into practice the use of the information that was read.

Pressley (2002, cited in Muijselaar et al., 2017, p. 194), on the other hand, focuses on written text stating that:

[g]ood text comprehension emerges if a reader is able to predict what is going to happen in the text, they are able to relate to the information in the text using their prior

knowledge, they are able to ask questions while reading, monitor their understanding of the text and that they are able to summarise what they have read.

Prediction, prior knowledge, questioning, monitoring one's own understanding of the text and summarising play a major role in Pressley's interpretation of comprehension.

In the sections that follow, I will briefly look at what reading comprehension is, followed by definitions of reading comprehension and how transference of reading comprehension skills can occur, followed by how meaning is constructed in reading comprehension. This is then followed by what vocabulary is, reading fluency and barriers to poor comprehenders. Different models of reading comprehension are briefly explained in Table 2.3, followed by reading comprehension strategies and theories of reading comprehension. As a result of the strong relationship between reading and listening comprehension, some researchers argue that the only significant "distinction between reading and listening is that reading comprehension requires an individual to decode or recognise printed words via rapid identification of grapheme-phoneme correspondences" (Perfetti & Hogaboam, 1975, cited in Tighe et al., 2015, p. 705) and listening is merely to understand what the speaker is saying.

2.9.1 What is reading comprehension?

Reading comprehension affects all aspects of our daily and academic lives. Oakhill et al. (2015) acknowledge that "reading comprehension is important, not just for understanding text, but for broader learning, success in education and employment. It is even important for our social lives because of email, instant text messaging and social networking" (p. 1) on apps such as Facebook, Instagram, Snapchat, WhatsApp, Google Hangouts and Zoom. Fast and accurate access to word meanings is critical in reading comprehension, as it takes place in the here and now (Oakhill et al., 2015). It is a complex task that requires the arrangement of various cognitive skills and abilities.

Because comprehension is a multifaceted act, it can occur with varying degrees of "complexity, and may be literal, inferential, or applied" (Bell & McCallum, 2016, p. 51). The complexity of reading comprehension and the skillset that is required to construct meaning from the text is quite intricate and is therefore constantly evolving as new skills are acquired and mastered. Successful comprehension happens when a learner creates a model or explanation that enables new information to fit current knowledge or to create new knowledge structures (Scott & Dreher, 2016).

2.9.2 Definition of reading comprehension

According to Kendeou and O'Brien (2018), reading comprehension is viewed as a complex goal-directed activity. The RAND Reading Study Group (2002, p. 11) defines reading comprehension as the "process of simultaneously *extracting* and *constructing* meaning through interaction and involvement with written language". This means that as the learners are reading, they are acquiring and creating meaning from the written text. The RAND Reading Study Group (2002, p. 11) states that comprehension requires three elements, namely (1) the *reader*, the one who does the comprehending, (2) the *text* that is to be understood and (3) the *activity* of reading that comprehension is a component of. Lipka and Seigel (2012, p.1873) differ from the RAND Reading Study Group (2002), as they define reading comprehension as a "multidimensional process that includes the reader, the text and factors associated with the activity of reading". Young readers can construct meaning from a variety of texts. They read to learn, to participate in "communities of readers in school and everyday life and for enjoyment" (Beck & Condy, 2017, p. 11). Understanding written language, although society requires it, allows learners to become a part of reading communities who seek meaning in what they are reading, which is so important as they progress through their academic careers. Success at school depends on successful learning, effective learning depends on the skill to "read to learn" and reading to learn is dependent on flourishing in "learning to read" in the primary years (Pretorius & Murray, 2019).

Liu (2015), however, states that "meaning does not have a separate, independent existence from the reader and prior knowledge of the reader or schema counts a lot in the extraction of meaning from the graphic words in the print". Thus, for extraction of meaning to occur when reading, the child needs to have some form of previous knowledge that allows them to make connections between themselves and the text. It is these connections that build bridges between the known and the unknown.

Pearson and Johnson (1978) define comprehension as "building bridges between the new and the known" (p. 24). This definition links to Vygotsky's zone of proximal development (ZPD). The ZPD originally referred to learning; however, in this context, the ZPD is the difference between what is known to the reader and what is unknown. Building the bridge between the known and unknown is where comprehension takes place and connections are constructed. Previous knowledge plays a role in building these bridges between the known and the unknown. Should the reader make a connection to something that is read, the teacher

can add additional information to what they already know. Thus, making connections plays an important role in reading, comprehension and listening.

2.9.3 Transference of reading comprehension skills

Making connections between the known and unknown allows for “reading comprehension skills to be transferred across languages” (Pretorius, 2014) and subjects, for example word sums in Mathematics. When reading word sums, instead of the child focusing on the words, teachers can assist them in reading so that they can concentrate on the sums (Clarke et al., 2014). Not only are the comprehension skills transferred across languages and other subjects, but it plays a major role when reading expository texts (Clarke et al., 2014). No matter the language that the child speaks, the knowledge and skills, such as making connections, visualisation and increasing and developing their pool of prior knowledge, that they have gained from reading comprehension can be transferred across language boundaries (Clarke et al., 2014; Pretorius, 2014).

These skills include “the ability to identify setting, main characters, problems and resolution in narratives, or the ability to identify main ideas, make inferences and predictions, use linguistic or text clues to construct meaning when reading expository texts” (Pretorius, 2014, p. 54). Constructing or interpreting the text by utilising the skills mentioned is important for the child to create their own meaning. Because the skills for reading comprehension can be transferred, it is “an active process” (Woolley, 2011). It requires a deeper level of interaction with the text to gain meaning. Basically, reading comprehension is about recognising words, short-term memory stores, vocabulary knowledge, syntactic incorporation and asking questions (Kibui, 2012, pp. 27-28). However, the “best types of questions are those that children construct themselves for the purpose of gaining new knowledge” (Woolley, 2011, p. 176).

2.9.4 Reading aloud

As mentioned in Chapter 1, reading stories aloud is important for children to develop comprehension skills. It follows that in general, poor listening skills will negatively affect the development of reading comprehension (Oakhill & Cain, 2007). Oakhill and Cain (2007) found that in earlier grades (2 to 4) in Britain reading comprehension was primarily driven by phonemic and background knowledge of the topic of the text, but not in the later grades (5 and 6). However, by Grade 5 and 6 knowledge of reading strategies (metacognitive strategies) such as using background knowledge to make inferences and predictions is a far more important forecaster of reading success than phonological knowledge. This view supports the

notion that early comprehension will be limited more by word-level reading (Cain & Oakhill, 2007). Thus, print awareness is highly correlated with first-grade reading comprehension and is generally a good predictor of later reading comprehension (Cain & Oakhill, 2007). As stated in Section 2.7, reading comprehension depends on listening comprehension in lower grades (1 to 4), as learners have insufficient phonemic and background knowledge. Developing their phonemic and previous knowledge allows children to begin reading with meaning. As the teacher reads stories aloud to learners to develop their listening comprehension, they should incorporate think-aloud strategies to support learners in developing and/or improving the learner's reading for meaning and comprehension of the text. Without saying what they are thinking, the learners often have difficulty understanding what is being read, especially if it is not their mother tongue (Kibui, 2012), and how they can relate it to their prior knowledge and develop their own thought processes.

2.10 Think alouds

Think-alouds cannot occur without read-alouds, as they make crucial comprehension processes observable (Hilden & Jones, 2013). According to Hilden and Jones (2013) "interactive read-alouds also provide an opportunity for teachers to make the crucial comprehension processes visible via thinking aloud". Bell and McCallum (2016, p. 156) hypothesise that think-aloud is "another type of comprehension". The teacher models their thinking processes during read-alouds. Throughout "interactive read-alouds, teachers can both model and encourage the before, during, and after reading comprehension behaviours and strategies that 'good readers' use" (Hilden & Jones, 2013). This supports learners in understanding the teacher's thought processes and how to integrate it when they are reading. Think-aloud incorporates summarising, question generating and comprehension monitoring (Bell & McCallum, 2016, p. 156). The think-aloud process needs metacognition, as learners need to think about their thinking when reading a text such as a poem, story, comic or picture. It also requires the learner to stop during reading and communicate the "thought processes" (Bell & McCallum, 2016) that they are using while reading the text or passage. Learners who comprehend well are better at checking how much they know while reading and apply metacognitive strategies as needed during reading (Bell & McCallum, 2016, p. 156; Clarke et al., 2014; Kibui, 2012).

An effective way for learners to learn higher-order thinking skills is "through teachers' proficient modelling", which is often done as a think-aloud (Ness & Kenny, 2016, p. 454). "The power of

effective teacher-generated think-alouds is indisputable” (Ness & Kenny, 2016, p. 453). This means that teachers need to plan think-aloud lessons effectively to model it to their learners.

Think-alouds are “verbal self-reports” about one’s thinking processes (Wade, 1990). It gives learners the opportunity to reflect. The teacher supports learners by guiding them through the reading passage. Think-alouds also develop the learners’ comprehension skills. It helps them with predicting, visualisation and constructing the meaning of the text and aids in the integration of new knowledge with previous knowledge (Wade, 1990). When think-alouds are done successfully, it can only benefit learner comprehension.

2.10.1 Benefits of think-alouds

The benefits of think-alouds are that (1) learners can hear the teacher’s thinking (Ness & Kenny, 2016), (2) that they make learners aware of their own thinking when reading (metacognition), (3) they assist in developing learners’ critical thinking (Scott & Dreher, 2016), (4) learning to make connections to prior knowledge becomes effortless (Scott & Dreher, 2016), (5) teachers can both model and support the “before, during and after reading comprehension behaviours and strategies that ‘good readers’ utilise” (Hilden & Jones, 2013, p. 17) and (6) they develop learners’ vocabulary (Hilden & Jones, 2013).

The think-aloud strategy is especially advantageous to average and below-average readers (Scott & Dreher, 2016). This means that learners with barriers to reading and reading comprehension will benefit if the teacher uses this strategy.

The only disadvantage of think-alouds is that teachers must prepare each lesson well, including specific strategies that the teacher wants to teach. They must also identify where in the text or storybook they want to ask each question for learners to learn the strategy.

2.10.2 Constructing meaning in reading comprehension

Reading with meaning and understanding is important, as it supports the child throughout their academic careers and in the workplace. Curtis and Kruidenier (2005) posit that “comprehension is the process of constructing meaning from what is read” whereas Anderson, Hiebert, Scott, and Wilkinson (1985) “described it as a holistic act that relies on several factors, including the background of the reader, the purpose for reading, and the context within which reading occurs” (cited in Bell & McCallum, 2016). This interpretation of what was read needs to take numerous aspects into consideration for the child to create meaning. Some of these aspects are their prior knowledge, the reason they are reading the text and the frame of

reference of how the reading takes place. Snow's (2002, p. 11) definition of reading comprehension is the method of getting and creating meaning at the same time "through interaction and involvement with written language". This involvement could include the teacher reading the story aloud or the child reading aloud to make better connections with what is being read. Snow (2002) also posits that with the "act of reading" the child brings their own experiences, proficiencies and knowledge of reading into the text. The text is generally understood to include any printed or electronic text. Bearing in mind the activity, we have the aims, developments and significances linked with the act of reading and the emerging vocabulary (Snow, 2002).

2.11 Components of comprehension

Irwin's (1991) levels of processing comprehension reveal a few components of comprehension that the teacher needs to consider when guiding reading. According to Cunningham et al. (2004, p. 186, cited in Prado & Plourde, 2011, p. 35), the "interaction among word identification, prior knowledge, comprehension strategies and engagement" forms part of the components of comprehension. Prado and Plourde (2011, p. 35) state that the "most basic part of comprehension is word identification". Other crucial elements are making connections or activating prior knowledge and their schemas (Hilden & Jones, 2013). For this research, the researcher will only be including vocabulary, reading fluency, inference-making, and background knowledge. The reason for these choices is that the researcher is working with Foundation Phase teachers and the rest of the components will be covered in later grades. If the learners have problems with any of these components, it will affect their understanding and comprehension in later grades.

2.11.1 Vocabulary

Vocabulary knowledge should be explained as a multifaceted construct (Wilsenach, 2015). Academics have depicted a difference between two elements of vocabulary knowledge, namely *vocabulary breadth* and *vocabulary depth* (Wilsenach, 2015). Vocabulary breadth is understood as the size of a learner's vocabulary. Vocabulary depth is explained as a learner's "level of knowledge of various aspects of a word" (Qian, 1999, pp. 287-288). These include the learner's information about pronunciation, spelling, meaning and register, "as well as knowledge of the morphological and syntactic properties of a specific word" (Qian, 1999, cited in Wilsenach, 2015, p. 2).

Developing vocabulary means fostering perceptions for words and seeing how they are different from or similar or identical to other words (Sheridan, 1981). A child's ability to comprehend word meanings is often measured by their ability to understand vocabulary (Clarke et al., 2014). According to Bell and McCallum (2016) there are four types of vocabulary, namely reading vocabulary, oral vocabulary, listening vocabulary and speaking vocabulary. There is a great overlap in the four types of vocabulary to be explained. Our vocabulary consists of single words, the meanings of which we understand. Reading vocabulary consists of words that we recognise and comprehend when reading. "Text comprehension relies on being able to access word meanings efficiently and integrate them into the context" (Clarke et al., 2014, p. 16). This means that the learners' understanding of the words should provide them with the meaning of the words within the context. Oral vocabulary indicates words that learners identify when speaking or recognise in listening. Listening vocabulary is wording that learners know when they hear it. Many children understand words by using their listening skills. Speaking or spoken vocabulary are the words that are known when speaking. Poor readers often have better listening and spoken vocabulary acquisition than their reading vocabulary (Bell & McCallum, 2016). Vocabulary knowledge is particularly important when developing reading comprehension ability (Kruidenier, MacArthur, & Wrigley, 2010). Other poor readers might be able to recognise words but do not know their meanings (Bell & McCallum, 2016, p. 50). Vocabulary knowledge and phonological skills support reading comprehension at various stages in reading development. Cain and Oakhill (2007) observed that when younger children read, they are limited to their word-reading and sentence-level skills, in comparison to older children whose comprehension is aimed at skills that support them in fostering meaning.

2.11.2 Reading fluency

Fluency is defined as the "ability to read connected text rapidly, smoothly, effortlessly and automatically" (Woolley, 2011, p. 72). Truly little thought is given to the fluency and "mechanics of reading" (Woolley, 2011, p. 72). Improvement in reading fluency leads to improvement in comprehension (Woolley, 2011). Reading with fluency is the skill of reading with proficiency and no difficulty. This is one of the ultimate reading skills to have mastered in reading (Bell & McCallum, 2016). Reading fluency involves reading being automatic and precise and reading with suitable accentuation, expression and pace. Before attaining the fundamental reading skill – "creating meaning from text" – the bridge between word recognition and comprehension must be reinforced because of the critical and reciprocal relationship between the two (Bell & McCallum, 2016). The importance of developing fluency is essential in attaining the ultimate

reading skill (Bell & McCallum, 2016). Woolley (2011) posits that “when readers are able to identify words automatically and process whole phrases, they are more able to attend to meaning” (p. 72). When understanding and creating meaning when reading fluently, it is easier for the child to concentrate on the meaning of the text. Having difficulty with reading fluency, for example reading each word individually, could mean that the learner is a poor comprehender.

2.11.3 Inference-making

Inferences made while reading rely on whether the text's subject matter corresponds with the reader's schema (Woolley, 2011, p. 99). There are different types of inferences: (1) some generate information, (2) others are used to fill the information gap and (3) selected inferences are automatic, while others necessitate controlled processes that are attention-demanding during reading (Kintsch, 1993, cited in Woolley, 2011, p. 100). Kibui (2012, p. 38) states that “comprehension cannot be attained if the learner is unable to infer the meaning of the words within context”.

2.11.4 Background knowledge

Background knowledge integrated with inference-making (Woolley, 2011, p. 38) and making predictions means that the learner needs to infer meaning from their prior knowledge (Woolley, 2011, p. 35). The knowledge and experience that a learner brings to the text (story) is important for reading (Kibui, 2012, p. 38). The interactive models of teaching reading demonstrate that the role of a reader's background knowledge and setting for reading plays an essential role in reading for meaning (Kibui, 2012, p. 42).

Considering the learners' background knowledge is crucial for comprehension.

2.11.5 Models of comprehension

The models of comprehension (Table 2.3) shown below present a clear pattern of various comprehension theories and processes that have been used over several years. The models listed in Table 2.3 “tap into different aspects of reading comprehension processes and, collectively, they provide a complete view of reading comprehension processes” (Kendeou & O'Brien, 2018, p. 8).

Table 2.3: Adapted models of reading comprehension (Aryadoust, 2019; Kendeou & O'Brien, 2018)

Adapted models of reading comprehension			
<i>Process/theory</i>	<i>Research field</i>	<i>Researcher(s)</i>	<i>Main idea</i>
<i>Precomprehension</i> Linguistic processing: Perception	Listening	Carroll (2008) (cited in Aryadoust, 2019)	The conveying of audio-visual information to the appropriate sections of the brain (Aryadoust, 2019)
<i>Comprehension</i> Construction Integration Model	Reading Comprehension	Kintsch (1988)	“Comprehension involves two phases – construction (bottom-up) and integration (top-down)” (Kendeou & O'Brien, 2018, p. 8)
Structure Building Model	Comprehension	Gernsbacher (1998)	This model of comprehension involves laying the foundation at before reading for mind-mapping to occur. The discussion prior to reading the text makes allowances for the development of visualisation (Kendeou & O'Brien, 2018).
Resonance Model	Comprehension – Making connections	(Myers & O'Brien, 1998; O'Brien & Myers, 1999; Kendeou & O'Brien, 2018)	This model encourages the making of connections through prior knowledge. It has been used to show that memory-based recovery methods are enough to explain much of

			what is involved in the activation of information that is used to construct inferences during reading.
The Landscape Theory of Comprehension	Reading	Van Den Broek (2010); Van Den Broek et al. (1996, cited in Kendeou & O'Brien, 2018); Aryadoust (2019)	Comprehension is the vibrant activation of various resources that are evolving and rearranging according to four potential sources: the current text, the prior sentence, background knowledge and text read previously.
Inference-making	Reading and comprehension	Cook and O'Brien (2017)	It is the ability to read or listen to "latent" information and deduce the various implicit relationships between propositions, events and individuals represented in the text.
Use of strategy	Comprehension	Flavell (1979)	"Strategies are mental processes that direct language users to apply their language knowledge and abilities" in the active process of comprehension. (Aryadoust, 2019)
Global Integrated Scenario-Based Assessment	Comprehension	O'Reilly & Sabatini, 2013;	This model views reading comprehension as a multifaceted and focused

		Sabatini & O'Reilly, 2013	activity. It draws on existing literature to assess meaningful comprehension in realistic environments that focus on the interaction of many components rather than on individual factors
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The models, as seen in Table 2.3, show that teachers have taken some part of each model to utilise when teaching comprehension.

2.12 Reading comprehension strategies

Reading comprehension strategies can be modelled through think-aloud strategies (see 2.7.1.4) as this teaches learners how to incorporate these metacognitive skills into their own reading (Wang, 2016). The teacher uses think-aloud strategies to model how a comprehension strategy can be used by the learners, and they provide opportunities for the learners to model and practice the strategy (Tennent et al., 2016). For example, if the teacher is modelling or explicitly teaching prediction, they could ask a question only by looking at the cover or the name of the book: "I wonder what this story is about" and wait for the learner's responses. Each strategy that is taught can be taught using the think-aloud method as it will aid learners in developing their comprehension skills (Wang, 2016).

According to Bell and McCallum (2016, p. 52) "comprehension is influenced by all other areas of reading", namely the reader's vocabulary, understanding of the text, answering, and generating questions and summarising the text. The following comprehension strategies, as identified in the CAPS English Home Language Grade R to 3 (DBE, 2011a) are the strategies that the researcher will be focusing on during the research stage as these are easy to model and teach explicitly (Pretorius & Murray, 2019):

- Making connections (prediction)
- Asking questions (and generating questions)
- Summarising
- Making inferences

- Visualisation
- Clarification

The above-mentioned comprehension strategies will be briefly discussed below. These are the “first” strategies presented in the CAPS English Home Language Grade R to 3 (DBE, 2011a) under the headings of listening, speaking, reading and viewing.

2.12.1 Prediction or making connections

Making connections (text-to-self; text-to-text; text-to-world) are intricately linked to prior knowledge (Prado & Plourde, 2011). Prediction is often used before a story is read. The teacher asks questions to get learners to guess what the story is about and then questions them regarding their prediction to possibly allow them to make connections with their prior knowledge (Tennent, 2015; Prado & Plourde, 2011; Woolley, 2011). Woolley (2011) states that “researchers support the role of teachers in modelling reading processes and guiding students to generate questions to connect ideas within a reading passage to their prior knowledge” (p. 165). During the modelling of strategies, the teacher’s guidance supports learners in connecting with their prior knowledge. Manset-Williamson and Nelson (2005) posit that the more unambiguous the strategy and self-regulatory the instruction, the higher the probability that they will make substantial gains in reading comprehension. In conclusion, learners need to be taught how to make connections between the text and their prior knowledge (Pretorius & Murray, 2019). Without these connections, they may have difficulty relating to the text which could possibly lead to poor comprehension thereof. Making these connections supports the child in seeing whether the predictions they have made are correct or incorrect. This assists in boosting the child’s self-confidence and makes them willing to try again (Woolley, 2011).

2.12.2 Asking and generating questions

When learners are taught to use questioning before, during and after reading, their ability to make suitable inferences about the text and comprehension improves (Palincsar & Brown, 1984; Prado & Plourde, 2011; Snow, 2002). According to Kamhi and Catts (2002), a key element of a good questioning treatment is when learning is a dialogical activity that is modelled by more expert others and progressively internalised by the individual reader in the form of self-questioning. When learners can eventually generate their own questions, it becomes clear that they have a better understanding of the text. Generating questions means that they have improved their background knowledge. Background knowledge is important

when it comes to making inferences when reading a text. Initially, questions generated by learners in the earlier grades are mostly literal questions. It is the teacher's duty to model inferential questions for learners to understand and then practise generating these types of questions (Pretorius & Murray, 2019).

2.12.3 Making inferences

Different types of questions in comprehension instruction will draw different types of inferences by the reader (Palincsar & Brown, 1984; Tennent et al., 2016). Freebody and Luke (1990) state that for comprehension to take place, the reader needs to make inferences that connects elements of the text and background knowledge to fill in the gaps of unexplained parts of the text. Making an inference is a process of combining what is known and unknown to the learner in order create an understanding that is not explicitly stated in the text (Zwiers, 2010). We use text clues and our prior knowledge to predict what will happen next in the story or text. Learners can also make use of the pictures to draw inferences, make personal references by observing the characters emotions and possibly make predictions (Freebody & Allan, 1990). There are three types of inferences, namely text-to-self, text-to-text and text-to-world (Tennent et al., 2016; Zwiers, 2010):

- Text-to-self: this inference has the child relate the text to themselves and their knowledge of the world. They question themselves about incorporating their background knowledge and own experiences with the text. The child is also making extremely private connections between the text and their own life occurrences (Tennent et al., 2016; Zwiers, 2010).
- Text-to-text: this inference allows us to relate from one part of the text to next. Proficient readers recall information that was previously read, or connections are made when they are reminded of another text they have read earlier or before (Tennent et al., 2016; Zwiers, 2010).
- Text-to-world: here, the child wants to know how the text being read relates to their world through accessing other knowledge that they may have gained by watching movies, television and visits to various places such as museums, galleries, theatre, beaches, mountain hiking, and so forth (Tennent et al., 2016; Zwiers, 2010).

Possible questions for the teachers to consider when teaching the above-mentioned types of inferences: Does this text allow readers to make connections with their own experience? Does it prompt readers to recall similar texts – similar in plot or style? Can readers connect this text to some previous information they know? (Tennent et al., 2016)

Deeper comprehension also involves *higher-order thinking* (McNamara et al., 2016) such as analysing, synthesising and evaluating information. Making inferences helps to build a mental model in the child's mind.

2.12.4 Summarising

Learning to summarise is a strategic process that needs to be taught to learners. Summarising takes place when we take a section of our thinking and break it down into smaller manageable chunks (Zwiers, 2010). Summarising can also be likened to “placing files into folders on a computer” (Zwiers, 2010, p. 35). Summarising urges readers to focus on the main facts or ideas in the text. Focusing on the main ideas helps to support the process of comprehension monitoring (Palincsar & Brown, 1984). This involves the reader discriminating between important and unimportant in a text and then producing the key ideas (Tennent et al., 2016)

After a story has been read, learners are asked to retell a story in their own words. Summarising or retelling is usually done as part of a reflection on the text after it has been read (Woolley, 2011). Retelling a story verbatim often leads to learners having difficulty identifying the main idea, characters, and the beginning, middle and end of the text or story (Schreuder, 2010). The teacher's guidance and support, through questioning, during the process, helps learners improve their skill of summarising.

2.12.5 Visualisation

Visualisation of the text helps learners remember the story and makes it more memorable. Developing a visual image of the written text, such as drawing a mindmap with the outline of, for example, the story, plot, characters, setting and main ideas, supports poor comprehenders and visual learners (Tennent et al., 2016). Visual images can also be transformed by using technology as it can help learners make connections with the story (Ho, Anderson, & Leong, 2011). Visualisation strategies can also help learners improve depth of encoding to new word learning by visualising the word with the support of the teacher (Woolley, 2011). Visualisation helps learners visualise the text in their mind. Utilising transduction, for example, learning a new word or reading a text, the message itself can be rearranged from writing to visualising or vice versa (Ho, Anderson, & Leong, 2011, p. 2). This strategy leads to learners becoming excited, as they have created their own mental picture (Pretorius & Murray, 2019). Visualisation forms a link with multimodal literacies and multi-literacies, which will be discussed in Chapter 3.

2.12.6 Clarification

Clarification was first highlighted as a strategy by Palincsar and Brown (1984). Depending on the difficulty of a text, some learners may need clarification. When words or phrases are unknown to learners, the teacher can clarify the meaning so that all learners understand its meaning. Clarification allows the teacher to check if there are any gaps in the learners' learning and it encourages learners to monitor their understanding of the text (Tennent et al., 2016). When reading text, the child can use the available context to clarify their comprehension of the sentences. However, when listening to a story, some children may become "lost" during the aural reading, as they do not have a process of clarifying parts that they do not fully understand. There is a breakdown or misunderstanding in their understanding of the story. Teachers need to work on methods that will allow learners to indicate if clarification is required, such as raising a hand when clarification is needed (Woolley, 2011). Barriers to comprehension and poor comprehenders are discussed below.

2.13 Barriers to comprehension

Working as a learning support teacher, I have worked with learners with reading, oral language and comprehension barriers. Part of White Paper 6 (DBE, 2001) states that various barriers to learning are presented in schools (see Chapter one). If we then consider the special needs (the diverse needs) of learners we need to bring support to learners, especially with comprehension. Through these experiences and research, the list of barriers of poor comprehenders below has been compiled. The barriers and the possible exhibition of poor comprehenders at home or at school are as follows:

- When reading in a first additional language (FAL) (DBE, 2011a; DBE, 2011b), the sociocultural influence is intense and unknown "words and concepts form a barrier" to comprehension and learning (Purcell-Gates, 2009, cited in Landsberg et al., 2016, p. 367).
- The child uses a reduced or recurring amount of vocabulary in speech and written work (Woolley, 2011).
- They may use words erroneously signifying a lack of deep understanding of word meaning (Woolley, 2011, p. 112).
- The child could battle to orally arrange and communicate opinions and ideas clearly (Brown, 2004, cited in Bell & McCallum, 2016, p. 101).
- They may not participate easily in class-based activities, such as question-and-answer sessions or share information willingly (Woolley, 2011, p. 100).

- Learners with poor comprehension skills have difficulty with “phonological, working memory, syntactic awareness and morphological tasks” (Lipka & Siegel, 2012, p. 14).
- These learners also have problems with fluency (Lipka & Siegel, 2012, p. 14).
- They may only understand the literal meaning of words, sentences, or text, that is, take it at face value.
- They may have poor narrative skills and could have difficulty sequencing a story they have heard and forming an intelligible storyline.
- They may have difficulty telling others a story or incident that has happened outside of school (Woolley, 2011; Brown, 2004, cited in Bell & McCallum, 2016, p. 101).
- The poor comprehender could have difficulty understanding complicated sentences because of slow or poor grammatical development, as well as trying to figure out who did what to whom.
- They may experience problems with constructing sentences: learners may have problems applying verbal reasoning or deductive skills to language, for example giving words that are opposite (antonyms), words that rhyme (rope – hope) or similar in meaning (cry – sob) (Clarke et al., 2014).
- Learners could have problems where they are unable or have great difficulty making inferences to link two ideas together unless it is clearly specified (Clarke et al., 2014).
- They may mainly accept literal meanings (Clarke et al., 2014).
- They may not necessarily refer to their background knowledge when they encounter new concepts (Landsberg et al., 2016).
- With comprehension monitoring, learners may continue with activities, although they may be unaware that they have not understood important facts (Pretorius E. J., 2014).
- Learners may have poor verbal working memory as they may have difficulty following a multi-step instructional activity, for example following a recipe (Pretorius, 2014).
- They may complete the first instruction in a list and then forget or struggle to know what follows; constant reminders may be needed (Bell & McCallum, 2016).
- Teachers sometimes find learners who lack the motivation to read; they often have an aversion to reading or try to evade reading. They possibly choose to read a few select type of books. (Clarke et al., 2014; Bell & McCallum, 2016; Landsberg et al., 2016; Woolley, 2011).
- Learners with dyslexia have difficulty mechanically understanding the code of language and lack “basic reading skills, phonological skills, orthography and fluency” (Bell & McCallum, 2016, p. 97; Woolley, 2011, p. 66).

- They have difficulties with precise and/or “fluent word recognition and poor spelling and decoding abilities” (Bell & McCallum, 2016, p. 59).
- They often have difficulty differentiating between letters (for example b/d; p/q; h/n) and numbers are often written inversely (Bell & McCallum, 2016).

The list above may be incomplete, as there may be many more barriers to comprehension that have not been mentioned. The strategic processes for reading comprehension will be discussed next.

2.14 Strategic processes for reading comprehension

Strategic processes are intentional, voluntary and generally fully conscious; they are also more amenable to self-regulation and tend to rely more on serial processing (Schneider & Shiffrin, 1977; Sternberg, 1999). These characteristics make strategic processes more dependent on attentional resources and subject to voluntary control. In contrast, passive processes are effortless, unintentional and generally outside conscious awareness; they are also difficult to stop or regulate and typically rely on parallel processing (Schneider & Shiffrin, 1977; Sternberg, 1999). These characteristics make passive processes relatively independent of attentional resources and not subject to voluntary control. Moving toward a greater understanding of the mechanisms and limitations of strategic processing in the service of deeper comprehension (Goldman et al., 2015; Graesser, 2015; McNamara et al., 2016) begs for identifying a paradigm that will allow the programmatic and systematic investigation of these challenging questions. In this context, a paradigm in which one tries to isolate and examine individual processes will not work because strategic processes are driven by the reader (Kendeou & O'Brien, 2018, pp. 10-12). To empower the learner to regulate their learning, the gradual release of responsibility will provide them with the necessary tools to become self-regulated in their learning.

2.15 Gradual release of responsibility

Traditionally, learners are taught directly, that is, lessons are teacher-centred and at the end of the lesson learners are given worksheets to complete (Maynes, Lynn & Dunn, 2010; Lin & Cheng, 2010). Modelling is an essential part and a major feature of direct tuition (Maynes, Julien-Schultz, & Dunn, 2010) and explicit teaching is modelling the comprehension strategy (Pretorius & Murray, 2019). The traditional method excluded learner participation during lessons. In this method of teaching, that is, the traditional method, teachers often learn that lessons are teacher-centred when they are teacher candidates or pre-service teachers. This method of teaching overlooked learners with barriers to learning.

Fisher and Frey (2008) and Fisher, Fisher, and Frey (2014) posit that efficient teaching for learners with barriers includes focused instruction (teaching) in reading and writing, an assortment of texts, motivation for work and realistic opportunities to practice reading and writing daily. They also suggested that one type of teaching would be beneficial for struggling learners. The gradual release of responsibility (GRR) model was first presented by Pearson and Gallagher (1983).

Pearson and Gallagher's (1983) initial GRR model had three stages, namely the teacher model, guided practice and learner application and responsibility. By contrast, Engelmann (1998) had two guiding principles which he referred to as intentional instructional intervention. The guiding principles introduced by Engelmann (1998) were that "[c]hildren can learn if they are taught" and that "[a]ll teachers can teach effectively if they have effective programmes and instructional techniques" (cited in Maynes et al., 2010). Engelmann (1998) scripted the entire lesson of gradual release with the precise wording of what and how the skills would be taught to possible learner responses. Teachers were given flexibility in the grouping of learners. However, maximising teaching time and improving the learners' focus was incorporated into the script and continuous assessment was used (Maynes, Julien-Schultz, & Dunn, 2010).

Rosenshine (1997) created a list of characteristics to implement his model of direct instruction. Rosenshine (1997) differs from Engelmann in terms of the scripted lesson or guiding principles, which had some limitations. Both Engelmann (1998) and Rosenshine (1997) had concepts of direct instructions: once the teacher has modelled for the learners, the learners need opportunities for "guided practice", with assistance gradually being taken away as learners' become independent in using the new skill (cited in Maynes et al., 2010, p. 67). This is generally referred to as the "gradual release of responsibility" (GRR) (Fisher & Frey, 2008; Maynes et al., 2010; Pearson & Gallagher; 1983) or "scaffolding" according to (Wood, Bruner, & Ross, 1976). Campbell and Parr (2007, cited in Maynes, Julien-Schultz, Dunn, 2010, p. 67) refer to GRR as the "gradual removal of the teacher's support to develop increasing independence with new learning". This slow removal of the teachers' assistance assists, guides and supports the learners in beginning their journey to become self-directed in their learning (to be discussed in Chapter 3).

According to Fisher and Frey (2008), the GRR model is the juncture where numerous theories intersect, namely the theory of cognitive structures and schema (Piaget, 1952), the concept of zones of proximal development (Vygotsky, 1962, 1978), attention, retention reproduction and

motivation (Bandura, 1965), as well as the theory of scaffolded instruction (Wood, Bruner, & Ross, 1976).

Lin and Cheng (2010, p. 1869) posit that these should not be seen or used in isolation nor separated from their theoretical foundations. Rather, it should be understood in what way “theory, research and practice” collectively impact our knowledge of the “basic principles of teaching and learning”.

2.15.1 The phases of gradual release of responsibility

Pearson and Gallagher (1983) introduced the GRR, which defines a structure for efficient instruction. This model represents learning as a focussed process that allows for a methodical transferral in the “cognitive load” from the teacher to the learner (Pearson & Gallagher, 1983, p. 317). In their model, “explicit instruction followed by guided practice in which the teacher and the learners” have shared responsibility of utilising these strategies or skills (Pearson & Gallagher, 1983, p. 33).

Fisher and Frey (2008, p. 28) agree with Pearson and Gallagher regarding the GRR model of teaching. Their model also offers teachers an instructional structure for progressing from “teacher knowledge to learner understanding” and a purpose to ensure that learners are assisted in achieving the skills and strategies required for success. It changes from teachers presuming all the liability for executing a task to a position where learners presume all the responsibility. In the model, the teacher uses the think-aloud strategy to accentuate what the emphasis is on by clarifying their thinking. Sections demonstrated frequently include comprehension strategies, word solving, using text structure or “gaining information from text features”. Likewise, the teacher also demonstrates the use of “predicting, visualising or summarising” (Yaseen, 2018).

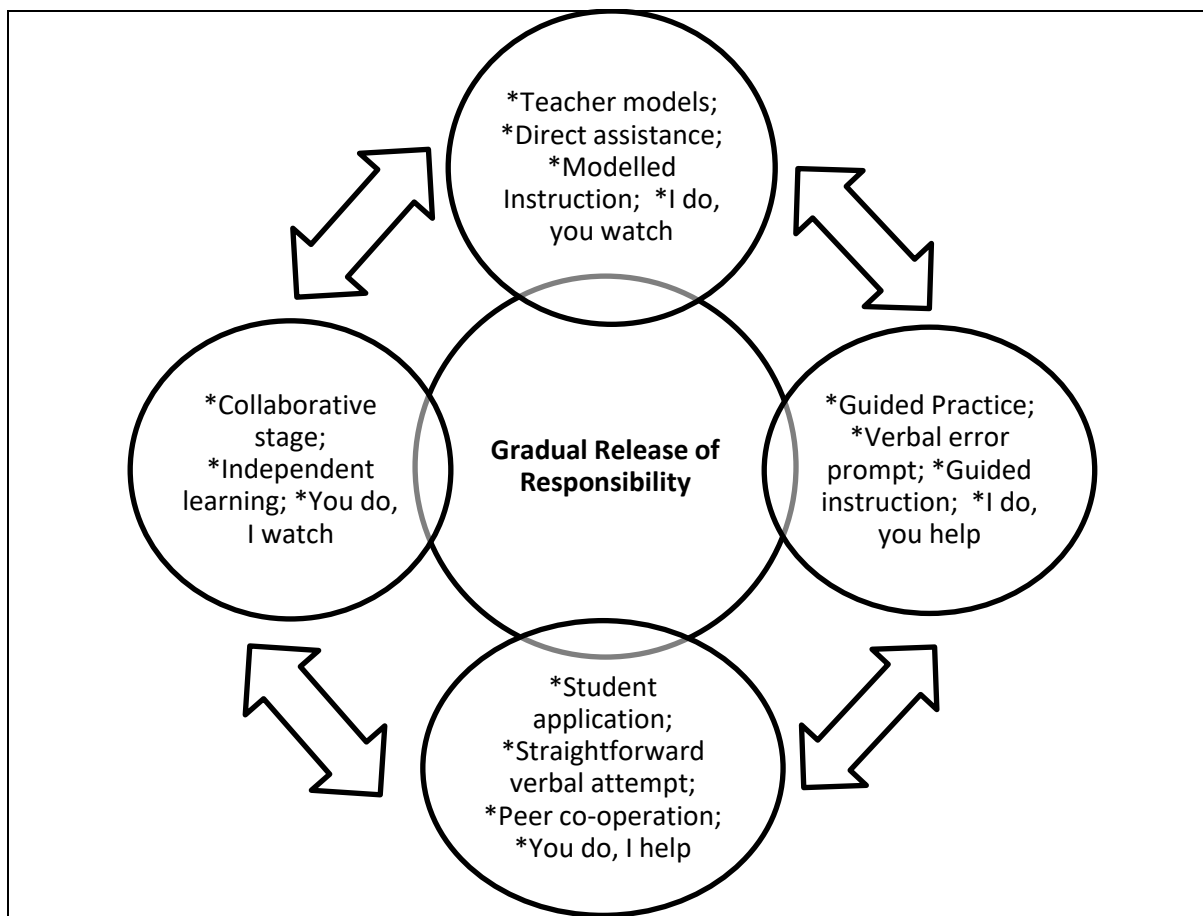


Figure 2.2: Gradual release of responsibility (adapted from Pearson & Gallagher, 1983; Wood, Bruner & Ross, 1976; Fisher & Frey, 2008; Lin & Cheng, 2010; Maynes, Julien-Schultz, Dunn, 2010)

Initially, the GRR model only had three stages, namely the teacher model, guided practice, and student application (Pearson & Gallagher, 1983). Wood, Bruner and Ross (1976, p. 93) also only identified three phases, namely “direct assistance, verbal error prompt and a straightforward verbal attempt to get the child to make more constructions”. Fisher and Frey (2008) later added a fourth stage, namely the collaborative stage, where students work together. They also emphasised that teachers could move freely, switching between the different stages, as it is not a linear model. On the other hand, Lin and Cheng (2010) created four phases of the GRR model, namely modelled instruction, guided instruction, peer cooperation and independent learning. A brief explanation of the different stages follows below, including Figure 2.2, which is used as a guide.

Referring to Figure 2.2, the teacher model (Pearson & Gallagher, 1983), direct assistance (Wood, Bruner, & Ross, 1976) and modelled instruction (Lin & Cheng, 2010) are grouped together as here, the teacher acts as the expert and models the strategy for learners and directs them through the initial process of modelling (Hobsbaum, Gamble, & Reedy, 2006).

This model is also referred to as “I do, you watch” (Maynes, Julien-Schultz, & Dunn, 2010). The teacher may read a story aloud and use the think-aloud strategy while they read to demonstrate the strategy that they want learners to become skilled in.

Following the teacher model is guided practice (Pearson & Gallagher, 1983), verbal error prompt (Wood, Bruner, & Ross, 1976) and guided instruction (Lin & Cheng, 2010) and “you do, I help” (Maynes et al., 2010). During this phase, the teacher wants learners to assist them while they are modelling the strategy. This begins to develop their self-confidence and the teacher can note those who are still struggling and then provide additional support.

Pearson and Gallagher (1983) and Wood, Bruner, and Ross (1976) did not have a fourth stage. Fisher and Frey (2008) added the stage referred to as the collaborative stage; Lin and Cheng (2010) have independent learning; and Maynes et al. (2010) refer to the last stage as “you do, I watch”. During this stage, learners are expected to work independently and the teacher is there to provide support to learners who may be struggling. This model can be intricately linked to learner autonomy, where learners become autonomous in their learning and in SDL, which will be further discussed in Chapter 3.

The GRR model is the juncture where numerous theories intersect, namely the “theory of cognitive structures and schema (Piaget, 1952), the concept of zones of proximal development (Vygotsky, 1962, 1978), attention, retention reproduction and motivation (Bandura, 1965), as well as the theory of scaffolded instruction (Wood, Bruner & Ross, 1976)” (cited in Lin & Cheng, 2010, p. 1869).

2.16 Theories of reading comprehension

Theories of reading play an important role in guiding teaching with pedagogical input, the importance of the theory and why it is important to understand it. These theories also support teachers in understanding where and why some learners have difficulty with a specific skill. I will only be discussing schema theory, comprehension as a listening process and psycholinguistics as these are particularly relevant to the research.

2.16.1 Schema theory

As stated in 2.5.2, schema theory overarches reading, reading comprehension and listening. Thus, as an overarching theory, it encompasses the three main sections of this chapter, namely reading, comprehension and listening. In this theory, children need good memory skills to recall phoneme and grapheme combinations easily to read. This will include memorising

letter shapes and sounds, including sight words (Duffy, 2014; Tennent, 2015; Woolley, 2011). Schema theory combines pockets of knowledge that the learner can access and refer to when reading. These pockets of knowledge form the background or previous knowledge that integrates “social, cultural and psychological terms” (Fairbanks, Cooper, Masterson, & Webb, 2014, p. 596). Schema theory has the view that schemata are activated when the learners’ previous knowledge looks for the importance in the new information (Ravindran & Jayanthi, 2019).

Yang (2010), cited in Ravindran and Jayanthi (2019), posits that there are three types of schemata involved in the process of understanding: linguistic, formal and cultural. “Linguistic schema is the linguistic knowledge” of the child, which entails the composition of sentences and categorisation of grammar (Ravindran & Jayanthi, 2019, p. 77). Difficulties in this area will impact “decoding, understanding of text, written or spoken” (Ravindran & Jayanthi, 2019, p. 77). “The meaning of a sentence and its symbols” (Ravindran & Jayanthi, 2019, p. 77) is represented in the formal schema. Cultural schemata, also called “abstract or story schemata”, are defined as “the pre-existing knowledge about cultural elements of the language being acquired” (Ravindran & Jayanthi, 2019, p. 77). The implications for this study are that learners improve their schemata, thereby expanding their knowledge base for reading, reading comprehension and listening. Even learners with barriers to learning should show some improvement in their schemata. Learners expand and develop their schemata through explicit teaching of the reading comprehension theories. The GRR model further expands their knowledge via peer cooperation. Poor comprehenders will also have opportunities to build their schemata, even if it is at a slower pace than the other learners in the class (see 2.5.2).

2.16.2 Comprehension as a thinking process

Hermosa (2006), cited in Navarette (2019), postulates that “comprehension involves thinking” and metacognition and, accordingly, that thinking has different levels, which in turn means that comprehension also has hierarchical levels. Woolley (2011) posits that comprehension is an overly complex process involving various cognitive activities such as summarising, predicting, inferring, questioning, and so forth. Tennent (2015) refers to the National Literacy Strategy (1998) of England, where they refer to three levels of comprehension: literal, inferential and evaluative. These levels are explained below.

- Literal: the reader can read the superficial information of the text, and they are able to recall specifics that are related to in the text.
- Inferential: the reader can infer meanings that are not directly perceived.

- Evaluative: the reader can give their opinion on the value of the text (Tennent, 2015, p. 28).

Due to its hierarchical nature, these three levels are cumulative, as one builds on to the other. As the child achieves each level, their level of thinking also increases. As comprehension is a thinking process, metacognition plays an important role (Bell & McCallum, 2016; Tennent et al., 2016; Woolley, 2011) and this includes reading and listening.

2.16.3 Psycholinguistics

Children with early communication problems often have problems with reading, spelling and comprehension when compared to their age cohort (Woolley, 2011). The psycholinguistic theory of language maintains that children are innately and naturally inclined to learn a language (Taylor & Taylor, 1990, cited in Woolley, 2011, p. 50). The theory also recognises that children internalise most important language factors before starting school (Woolley, 2011). Psycholinguistics is a discipline that emerged via research amongst psycholinguists that focused on issues of language processing, language production and language development (Duffy & Israel, 2014). Language processing is the development of verbal skills that enable the child to express themselves. Language processing incorporates language production and development, as they lead the child to read and eventually comprehend. “Reading comprehension is an instance of all comprehension” (Duffy & Israel, 2014, p. 94). The balanced language approach (BLA) (Botha, Hugo, & Mthembu, 2008) looks first at the big picture and then works its way down to the smallest details, namely phonemes, graphemes and single sounds (see 2.3.2). This also means that reading, reading comprehension and listening are all taught within the context of the story.

2.17 Listening

2.17.1 Introduction

Freire (1985, p. 18) stated at an interview that “reading the world precedes reading the word”. This “reading the world” is developed through listening skills and observations that children make of the world around them. Therefore, before their speech develops, they are “reading the world” around them. This can also be referred to as the logographic stage, as the child cannot identify or recognise letters, but they can identify facial expressions, signage and shapes (Tennent, 2015; Owens, 2016). Oakhill et al. (2015, p. 4) posit that the spoken language comprehension that prepares the groundwork for formal reading and reading comprehension usually develops before children have any prescribed reading teaching. This

means that children first begin to read the world around them before they begin to process letter forms and what they mean (Freire, 1985). Therefore, decoding of words, word writing and reading only find their rightful place after children have made sense of their world. However, as children are from different backgrounds when starting school, they all start with differently sized vocabularies. When beginning to read, some will already start off at a disadvantage, as they will have a backlog in their vocabulary. Therefore, when they start to read, they will be at a disadvantage, as their vocabularies will be smaller and this will affect their reading comprehension (Oakhill, Cain, & Elbro, 2015). Their inferior quality vocabulary cannot be compensated for (Oakhill et al., 2015, p. 69). When they start school, teachers expect they are already competent comprehenders and producers of spoken language, as many have made sense of their world through listening.

2.17.2 What is listening?

Listening plays a role in our everyday communication and scholastic development (Sejdiu, 2017). According to CAPS (DBE, 2011a), learners are continually making progress in their listening and speaking skills, but not necessarily in the various aspects of language, but in other subjects as well. Because of listening and speaking being a crucial part of learning, it is important that these skills are developed early in a child's academic life (DBE, 2011a). To develop and improve listening comprehension, listening and auditory skills must be developed and mastered without delay. Learners who can demonstrate listening skills in a second language can prove proficiency in other language skills (Sejdiu, 2017). As mentioned in Chapter 1, the main purpose of reading is comprehension and this goal starts with listening and listening comprehension (Cain & Oakhill, 2007).

2.17.3 Definition of listening and listening comprehension

According to Rost (2002, cited in Gilakjani & Ahmadi, 2011, p. 978), "listening comprehension is an inferential process". He also states that listening is the process of hearing what the person says, making meaning, discussing the information with the speaker and reacting through active participation, thoughts and understanding. Purdy (1997, cited in Gilakjani & Ahmadi, 2011, p. 978), posits that listening is an "active and dynamic process of attending, perceiving, interpreting, remembering and responding to verbal and non-verbal needs, concerns and information offered by other human beings". It is only through active listening and participation that the learner will develop their skills of listening.

Listening comprehension is defined as the skill to assimilate, comprehend and acquire understanding from spoken language (Molloy, 1997) and it can also be considered as a part of the skills of more general oral language comprehension (Nation & Snowling, 2004, cited in Tighe et al., 2015, p. 700). Research also indicates that listening comprehension is directly linked to reading comprehension as well as indirectly through its “interaction with other literacy-based skills such as vocabulary knowledge (i.e., oral language) comprehension”, according to Kendeou et al. (2009).

Listening comprehension is understanding the different components of spoken language (Ahmadi, 2016). These components are differentiating between the different speech sounds, the comprehension of singular words and discerning the composition of sentences (Ahmadi, 2016). Pourhossein, Gilakjani and Ahmadi (2011) indicate that listening incorporates listening for opinions, beliefs and meanings and “this needs active involvement, effort and practice” (cited in Ahmadi, 2016, p. 7). The SVR emphasises the prominence of listening comprehension, as it links to reading skills, which claims that reading comprehension is the result of “word-level decoding abilities and language comprehension skills” (originally proposed by Gough & Tunmer, 1986). Word decoding (reading) signifies the skill to read individual words out of context, and language comprehension refers to the skill as “understanding words, sentences and texts” during listening and/or reading comprehension (Oakhill et al., 2015, p. 2). As these skills improve, so too do listening comprehension and reading comprehension. These skills are as important, as learners are acquiring the skills in a language that is not their mother tongue.

Listening with understanding, especially for learners whose mother tongue is not the same as the LoLT, can sometimes delay the mastery of the language, especially in the South African context. As mentioned in Chapter 1, many South African learners attend schools where the LoLT is not their mother tongue. These learners’ LoLT could possibly be their second, third or fourth language that they speak. They have difficulty with listening and listening comprehension, as they do not have the oral language to grasp the concepts or stories being discussed. Many learners do their first three years of tuition (Foundation Phase) in their first or home language (HL) as LoLT (Pretorius & Klapwijk, 2016). In schools where the LoLT is not English, it is introduced as a First Additional Language (FAL) in Grade 1, and the changeover to English as LoLT happens in Grade 4 (Pretorius & Spaull, 2016), except where Afrikaans is the LoLT. Wise et al. (2007) recognises that listening comprehension has a critical part to play in the improvement of pre-reading skills (cited in Tighe et al., 2015 p. 704). Pre-reading skills play an important role in developing listening comprehension and, eventually, in

reading comprehension. Thus, the development of listening skills is important, as they form part of the building blocks that eventually leads to independent reading and reading comprehension.

2.17.4 Development of listening comprehension

The relationship between listening and reading comprehension is theoretically dependent on fostering developmental stimuli (Cain & Oakhill, 2007). As children grow and develop, they should be exposed to a wider range of stimuli that expands and fosters their knowledge base. “The development of listening comprehension skills helps learners to succeed in language learning and increase their comprehensible input” (Ahmadi, 2016, p. 7). The skill of listening comprehension development helps learners improve their language development and listening abilities. Nunan (1998), as cited in Pourhossein, Gilakjani & Ahmadi (2011, p. 977), said that “listening includes an active process of decoding and making meaning from both verbal and non-verbal messages”. Listening is an active method of decoding and making meaning from speech and gestural movements. This active listening process supports language learning.

Listening comprehension and listening skills are linked to learning language. Listening skills are auditory perception skills that a child requires to develop listening comprehension. The main element of teaching is listening comprehension. Listening is the most used skill in classrooms (Pourhossein, Gilakjani & Ahmadi, 2011). Even “video text use allows listeners to utilise communication’s non-verbal components that can help them in comprehending and processing aural input” (Zainol et al., 2011, cited in Sejdiu, 2017, p. 65). This form of multimodal teaching assists learners in developing their listening and listening comprehension skills. Learners who have difficulty developing their listening and listening comprehension skills tend to have a barrier(s) to listening.

2.18 Barriers to listening

Barriers around linguistic knowledge will impact the learner’s ability to decode and understand the text, whether spoken or written. These barriers to listening may be intrinsic (impairments, diverse learning needs, disabilities) or extrinsic (the home, community or school) in nature (cf. Chapter one). “Children who have specific language impairments have been found to have poorer listening comprehension skills (Kelso, Fletcher & Lee, 2007; Vandewalle, Boets, Boons, Ghesquière & Zink, 2012) and are also more likely to have vocabulary deficits than children without specific language impairments (Stothard, Snowling, Bishop, Chipchase &

Kaplan, 1998), which indicates that verbal reasoning ability may contribute to listening comprehension” (cited in Tighe et al., 2015, p. 704). In listening and linguistic knowledge, there are auditory perceptual skills which children must master to develop their linguistic knowledge, namely auditory discrimination, auditory memory and auditory processing. Auditory discrimination is listening to the differences in sounds, giving commands, for example pointing to pictures in a storybook, closing their eyes and listening to the sounds of different items and saying what they are (Ahmadi, 2016). Auditory memory is following two or three short commands, for example collecting items and placing them on a specific place or recalling a story that was read (Ahmadi, 2016). Auditory processing requires the child to listen when an activity is being done actively. Rhyming (fat, sat, mat), words that have the same ending; segmentation, breaking a word up into syllables (but+ter+fly); listening for sounds in words that are different, e.g., see, sat, mat, say (DBE, 2011a) are important in developing listening skills. These perceptual skills must be developed for the child to succeed in listening comprehension (Ahmadi, 2016; Hanekom, 2012).

“Suitable teaching in listening comprehension can decrease listening anxiety and provide a good basis for becoming independent learners who can effectively use the listening process for learning” (cf. Chapter One) (Ahmadi, 2016, p. 9). Teaching the above-mentioned skills and creating opportunities for learners to develop their self-confidence will support them and the teacher in reducing their listening apprehension. This will assist them when they begin reading and do reading comprehension.

2.19 Summary

At the beginning of the chapter, I stated that there is a common thread that weaves its way through reading, listening and comprehension. Through this literature review, I have attempted to weave the threads together by incorporating linked threads that illustrate that the one is dependent on the others. I have looked at the following: four approaches to teaching reading, namely the bottom-up, top-down, interactive and balanced language approaches; theories which overlap reading, listening and reading comprehension; and different models and elements that play an important role in each section. Barriers to learning in each section were also investigated. A working definition for reading was established, namely *reading is the process of creating meaning through the active collaboration between the reader's current knowledge, and the circumstance of the reading situation; reading is using meaning as appropriate to the type of text, purpose and situation; reading is gaining meaning from print, thinking while reading, solving problems during the act of reading and acquiring knowledge.*

This working definition incorporates the eventual aim of reading, namely to comprehend the text, whether it is on social media, pictures, poems, graffiti, media or movies.

For teachers, the various aspects that were covered should provide them with additional information to teach reading and reading comprehension to learners in their respective classes, as well as take note of the learners' listening skills, thereby assisting teachers in addressing the diverse and special needs of learners in the classroom regarding reading comprehension. Guidelines for explicit teaching and the gradual release of responsibility should provide them with sufficient support to cover these aspects in their classes, no matter the grade.

In the following chapter, I will be doing a literature review on multimodal learning, multimodality and SDL. I will also review how technology has impacted these types of learning.

CHAPTER 3: SELF-DIRECTED LEARNING, MULTIMODALITY AND MULTIMODAL LEARNING IN READING

3.1 Introduction

The research sub-question guiding this chapter is “How can teachers in the Foundation Phase implement multimodal modelling of reading comprehension strategies and foster SDL?”. This chapter aims to bring some clarity to what SDL is and how it can be fostered within the context of multimodal learning. The learning theories guiding SDL, in the context of this study, were constructivism and social constructivism, which include the sociocultural theory of learning associated with Vygotsky and Bandura’s social learning theory. These learning theories form part of the conceptual framework of this study. Social interchange is important in social constructivism, as social interchange takes place as learning occurs. On the other hand, constructivism views prior knowledge as important for constructing new knowledge (James, 2006). The socio-cultural theory of learning is based on Vygotsky’s (1978) work. This theory acknowledges what learners bring to the task of comprehension through listening and speaking. Bandura’s social learning theory (1978) takes place in a “social setting” where learners can help one another.

Bandura’s learning theory is followed by an in-depth look at SDL. I will initially give an overview of SDL definitions, beginning with Knowles (1975), the pioneer of SDL. Knowles (1975) postulates that learners and/or others need to identify their learning needs, formulate their learning goals, identify resources they need for learning, select and implement learning strategies and then evaluate the learning outcomes. SDL is then further explained, and Brockett and Hiemstra’s (2012) Personal Responsibility Orientation (PRO) and Person, Process and Context (PPC) models are combined in a diagram. Integrating the two models provides a better understanding and comprehensive insight into the model.

Learner autonomy, self-regulated learning and self-regulated strategies are linked to learners using reading strategies. A brief overview is given on specific scales of self-directedness that were developed by Guglielmino (1977), Grow (1991), Williamson (2007) and Cheng et al. (2010). Self-regulated strategies regarding reading and what occurs before, during and after reading is clarified.

Self-directed language learning (SDLL) is incorporated into this chapter, as it demonstrates how learners can learn a language.

3.2 Theoretical framework for self-directed learning

Vygotsky's (1978) theory incorporates scaffolded learning (Tennent, 2015). Parts of the theory is grounded in the principle that "learning involves mental construction where learners build on what is already known" (Tennent, 2015, p. 162). Social constructivists believe that learning takes place during social interaction. Vygotsky believes that, in his theory of guided learning, there are two developmental levels of learning that form part of the zone of proximal development (ZPD). These levels are the learners' "actual developmental level (where they are now and their potential developmental level (where they might get to with help)" (Tennent, 2015, p. 162). As the learner develops from what they know and is ready to move on to the next level, the teacher provides the scaffolding to support them in moving up in the ZPD. The scaffolds are temporary measures that the teacher uses to support the learner and mediate learning. The theories discussed below are linked to SDL because learners learn to construct knowledge as they become more autonomous in their learning. SDL "usually takes place in association with various kinds of helpers, such as teachers, teachers as facilitators, tutors, mentors, resource people and peers" (Van der Walt, 2016).

3.2.1 Constructivism

In constructivism, previous knowledge is deemed prominent for constructing new knowledge (James, 2006). Previous knowledge relates to knowledge, concepts and competencies that the learner brings to the classroom (Mkhwanazi, 2014). Learners actively construct their own meaning using effective thinking processes that are based on their prior knowledge (Vygotsky, 1978; Tennent, 2015). Constructivism involves an active thinking process as learners construct their own meaning in relation to their prior knowledge (Tennent, 2015). Learners are actively involved in constructing their knowledge by incorporating their previous knowledge with the new knowledge that is being acquired (Woolley, 2011). This learning theory is focused on the learner's personal metacognitive processes, such as planning, monitoring and reflection on the process (Woolley, 2011).

Constructivist theory is founded on the credence that learning involves mental construction where learners develop what they already know (Tennent, 2015). In constructivism, learning is seen as developing cognitively. A relevant part of constructivism is that learning is not done passively, rather, it is cognitively and actively constructed (Donald et al., 2020, p. 105). Cognitive behaviour techniques include guided instruction that occurs when the teacher guides learners through a

reading task by modelling the steps they want learners to learn while explaining the thinking processes aloud.

As stated by Piaget (1979), in learning, the learner goes through a period of equilibrium where most information is understood. However, when new information is added, disequilibrium occurs, as the learner needs to find a way to understand the new information and use different schemas so that the assimilation of the information can occur. The equilibrium and disequilibrium of Piaget are similar to constructing knowledge as in social constructivism.

3.2.2 Social constructivism

Social constructivism has its origins in constructivist theory (Tennent, 2015). Social constructivism emphasises learning on the social exchange that occurs (Tennent, 2015). This collaboration and the discourse it includes is critically significant for social constructivism. Scaffolded learning (Vygotsky, 1978) is narrowly associated with the social constructivist theory of learning. *Scaffolding* refers to the help that adults and more knowledgeable peers give to their peers and learners during teaching and learning opportunities (Tracey & Morrow, 2017). “Language, which is central to our capacity to think, is developed in relationships between people, social relationships are necessary for, and precede, learning” (James, 2006, p. 10). Children learn language through social interactions

Social constructivism draws attention to interaction, collaboration and group work for successful learning (Akpan, Igwe, Mpamah, & Okoro, 2020). The theory states that language and culture are the structures through which people become aware, convey and comprehend reality (Akpan et al., 2020). According to Vygotsky (1978), language and culture play central roles in human scholarly improvement and how humans see the world (Akpan et al., 2020). This means that “learning concepts” are shared using “language, interpreted and understood by experience and interactions within a cultural setting” (Akpan et al., 2020, p. 50). To have language and culture, a group of people can assist in building cognitive structures; thus, knowledge is socially developed and co-constructed.

Social interaction plays an essential role in children developing their learning concepts, opinions and principles. Social constructivists view knowledge development as a collaboration between learners, teachers and their peers. The emphasis on the collaborative nature of learning within social constructivism is supported under the guidance of a facilitator or working together with peers (Akpan et al., 2020). Social constructivism is based on the belief that “children’s knowledge, ideas, attitudes and values develop through interaction with others” (Woolfolk, 1999, p. 44, cited

in Tracey & Morrow, 2006, p. 214). It also highlights the importance of the command of the system of symbols (for example, writing, numeration and spoken language) that the child needs to develop (Tracey & Morrow, 2017).

As mentioned previously, a key notion in social constructivism is the zone of proximal development (ZPD) (Vygotsky, 1978), which refers to the perfect level of task complexity needed to improve learning (Tracey & Morrow, 2017).

3.2.3 Socio-cultural theory of learning

Vygotsky's sociocultural theory of learning recognises what learners bring to the task of comprehension through listening and speaking. Teachers take on the role of mediators or facilitators of learning (Vygotsky, 1978). Teachers model what strategies they want learners to use and practice. As a pedagogical strategy, learners have some control over their learning. Therefore, peer learning is easier to encourage amongst learners; through peer-assisted learning, learners can become self-directed in their learning (Akpan et al., 2020). Within the context of this study, it is relevant to note that Vygotsky's (1978) approach is not only applicable to reading but it also includes listening, speaking and comprehension (Woolley, 2011).

Vygotsky's (1978) theory incorporates "scaffolded learning" (Tennent, 2015). Parts of the theory is grounded in the principle that "learning involves mental construction where learners build on what is already known" (Tennent, 2015, p. 162). Social constructivists believe that learning takes place during social interaction. In his theory of guided learning, Vygotsky believes that two developmental levels of learning that form part of the zone of proximal development (ZPD). These levels are: (i) the learners' "actual developmental level (where they are now) and (ii) their potential developmental level (where they might get to with help)" (Tennent, 2015, p. 162). As the learner develops from what they know and is ready to move on to the next level, the teacher provides the scaffolding to support the learner's diverse educational needs as well as the learners with diverse educational needs (special needs) to move up a level in the ZPD (Tennent, 2015). The ZPD is the gap between a learner's ability to execute a task under the adult direction and/or with peer collaboration and the learner's ability to resolve the problem independently (Arshad & Chen, 2009). The scaffolds are temporary measures that the teacher uses to support the learner and mediate learning.

Vygotsky's theory of learning is one of the foundations of constructivism. Vygotsky posits that learners should use their thinking skills to piece together knowledge for themselves (James,

2006). Learners are also builders of their own knowledge. In constructivism, previous knowledge is viewed as significant in building new knowledge (James, 2006).

The relevance of Vygotsky's theory is explained by how learners comprehend text (Block & Pressley, 2002; Gunning, 2010). Learners construct the additional knowledge needed as they comprehend the text. Gunning (2010) explains reading comprehension as a constructive procedure between the learner and the text being read, allowing the learner to read between the lines. Similarly, Block and Pressley (2002) state that the learner should utilise mental processes and cognitive strategies to assign meaning to the text. Expanding on Vygotsky's theory, Bandura's (1978) social cognitive theory will be explained.

3.2.4 Bandura's social learning theory

The social cognitive theory is the original work of Bandura (1978) and Vygotsky (1978). The original theoretical concept was that "learning occurs and is assisted during social interactions" (Woolley, 2011, p. 6). Integrating social constructivism and socio-cultural theory into reading in the Foundation Phase involves that reading takes place in a group or social context. As learning takes place in a social setting, learners can help one another. The social cognitive theory allows learners to bring their knowledge or schemata to the learning process of reading and comprehension.

There are three key concepts of Bandura's social learning theory. Bandura states that individuals learn from each other via observation, imitation, and modelling (Bandura, 1991). In this context, it is important to note that "[m]ost human behaviour is learned" empirically during modelling. From watching others, "[o]ne forms an idea of how new behaviours are performed, and on later occasions, this coded information serves as a guide for action" (Bandura, 2021). The information gained through these observations adds to the learners' schemata. They are also able to change their behaviour through these observations and modelling.

3.2.5 Self-determination theory

"SDT is concerned not only with the specific nature of positive developmental tendencies, but it also examines social environments that are antagonistic toward these tendencies" (Ryan & Deci, 2000, pp. 68–69). Hostile environments are not conducive to developing a positive inclination toward SDT. SDT proposes that individuals are motivated to grow and change by three distinctive and universal psychological needs: proficiency, association and independence (Cherry & Sasman, 2021).

Deci and Ryan (2012) state that the self-determination theory (SDT) is an “[e]mpirically derived theory of human motivation and personality in social contexts that differentiates motivation in terms of being autonomous and controlled” (p. 416). Ryan and Deci (2017) further posit that SDT “specifically assumes that humans have evolved to be inherently curious, physically active and deeply social beings” (p. 17). They developed the SDT of motivation, which deposed the prevailing principle that the best way to get people to complete assignments is to fortify their behaviour with incentives. Intrinsic motivation or participating in activities that bring rewards to the behaviour plays a crucial role in SDT. SDT concentrates mainly on internal resources of motivation, for example a need to increase knowledge or independence (Cherry & Sasman, 2021). The excellence of a learner’s motivation elucidates part of the reasons they “enjoy school, achieve highly, prefer optimal challenges and generate creative products” (Reeve, 2002, p. 183).

According to SDT, at least three worldwide mental needs are crucial for optimum development and effectiveness: competency, connection and autonomy (Cherry & Sasman, 2021; Deci & Ryan, 2017). SDT is a methodology for individual motivation and character that uses conventional experiential approaches while utilising “organismic metatheory” that emphasises the significance of “humans’ evolved inner resources for personality development and behavioural self-regulation” (Ryan, Kuhl & Deci, 1997, cited in Ryan & Deci, 2000, p. 68).

Ryan and Deci (2017) explain that “SDT specifically assumes that humans have evolved to be inherently (intrinsically) curious, physically active and deeply social beings” (p. 4). According to Vygotsky, learning takes place in a social context, and this, therefore, creates a link between SDT and Vygotsky’s constructivist theory. Through learning, learners need to proactively participate with the learning material during the lesson. “SDT is concerned with the nature, structure and functioning of a person in action, including the person’s inherent proactive capacities to selectively engage, interpret and act on the external environment” (Ryan & Deci, 2017 , p. 8). Learning in the Foundation Phase occurs in groups and the whole class and through peer learning, thus incorporating Vygotsky’s social learning theory and SDT.

As mentioned above, SDT’s three basic psychological needs are independence, proficiency and connection. Relatedness refers to being “socially connected” (Ryan & Deci, 2017 , pp. 10-11). Proficiency in SDT refers to our basic need to feel effectively motivated and adept in our understanding. Autonomy is the need to “self-regulate one’s experiences and actions” (Ryan & Deci, 2017 , p. 11).

SDL has its origins in self-determination theory (Olivier, 2020a). According to Van der Walt (2016), SDL supports the idea of supervising and guiding the learning process. SDT is a comprehensive framework for studying human motivation (Liu, Wang & Ryan, 2016). SDT predicts that the learner's engagement to meet their natural needs and be truthful to their own values and needs is based on one's ability to meet intrinsic needs and be true to their own values and desires. This self-motivation is needed for SDL. Self-determination can be enhanced by focusing on the following: (1) improving self-awareness through self-examination and reflection, (2) setting goals and creating plans to achieve them, (3) improving problem-solving and decision-making skills and (4) improving self-regulation through mindfulness or other techniques (Deci & Ryan, 2012; Niemiec & Ryan, 2009; Ryan & Deci, 2000, 2017).

SDT is a way for us to understand human motivation better. SDT addresses individuals' intrinsic growth and tendencies towards specific psychological needs. The psychological needs are autonomy (self-sufficiency), competency (proficiency) and relatedness (understanding). SDT is self-sufficiency or the need to self-regulate one's involvement and activities (Ryan & Deci, 2017, p. 11). In SDT, ability (competence) refers to our basic need to feel motivation and mastery. Relatedness (understanding) involves feeling socially linked (Ryan & Deci, 2017). When people feel cared for by others, they basically feel a kinship. SDT and SDL appear to be closely linked as one needs to be self-determined to use SDL in learning. In the next section, SDL is further unpacked, with specific reference to definitions and its importance in the 21st century.

3.3 Self-directed learning

"The journey to self-directedness is challenging and requires a lot of *unlearning*" [emphasis in original] (Collier, 2022, p. 117). It is at school where they should develop self-directedness again through learning strategies. Also, not all learners want to be independent in all subjects. This is because of motivation and many other effectual issues (Van Deur, 2017).

Gibbons (2002) includes younger learners in his definition. Gibbons (2002) posits that SDL is any expansion in information, ability, achievement or individual progress that they choose and bring about by their own hard work using any technique in any environment at any time (Gibbons, 2002).

Learners often want more information than is shared by the teacher. They want to increase their learnedness by using digital devices and social media to improve this data (Bull, 2017). Even though the class that is being taught may be traditionally teacher-led, some learners, who are able to work independently, will move forward with SDL (Bull, 2017, p. 16).

Teacher-directed learning (TDL) and SDL are key viewpoints to learning. TDL is essential because it effectively teaches new information in large pieces (Steyn et al., 2016) and practises it. Modelling strategies to learners is teacher-directed as the teacher is in control of the information that is being disseminated. SDL is essential because it allows learners to adapt their methodology to learning responsibilities, joins the progress of skills with the “development of character, and prepares them for learning throughout their lives” (Gibbons, 2002, pp. 2-3). SDL and TDL are considerably dissimilar. They demand different methodologies from the teacher and require new learning skills from learners (Gibbons, 2002).

In SDL, learners take control of most of the teaching functions that are commonly traditional in TDL, until they are designing as well as fulfilling their own learning tasks. The teacher’s role is changed and becomes more significant and challenging (Gibbons, 2002). Teaching SDL needs a complete specialised inventory of teachings, including training, coaching, guiding and counselling skills (Gibbons, 2002). Teaching and encouraging SDL also signifies a “paradigm shift in thinking about teaching and learning” (Gibbons, 2002, p. 3). Gibbons (2002, p. 3) also states that in “TDL we teach learners about the nature of flight, in SDL, we teach learners how to fly”. When learners learn to fly, they “earn their wings” (Gibbons, 2002, p. 3). SDL and the gradual release of responsibility (GRR) allow learners to spread their wings.

SDL can be linked to GRR (see 2.10.1). As the learners become more independent, the teacher releases more responsibility to them. The teacher is, however, still there to provide support. In SDL, learners form part of the decision-making process regarding what they are going or want to learn and how they will learn it (Gibbons, 2002). By contrast, with GRR (see Figure 3.1), the teacher leads, models and guides learners until they can work independently. The diverse educational needs of learners need to be considered in teaching and learning as indicated in White Paper 6, pages 6 and 7, point 10 and 11 (DBE, 2001). Teachers need to consider that support must be provided to diverse special needs. All learners in class may need special support during teaching and learning. But maybe a learner with a specific barrier to learning will need additional support – to become self-directed, they will need additional support with comprehension (Florian & Walton, 2017).

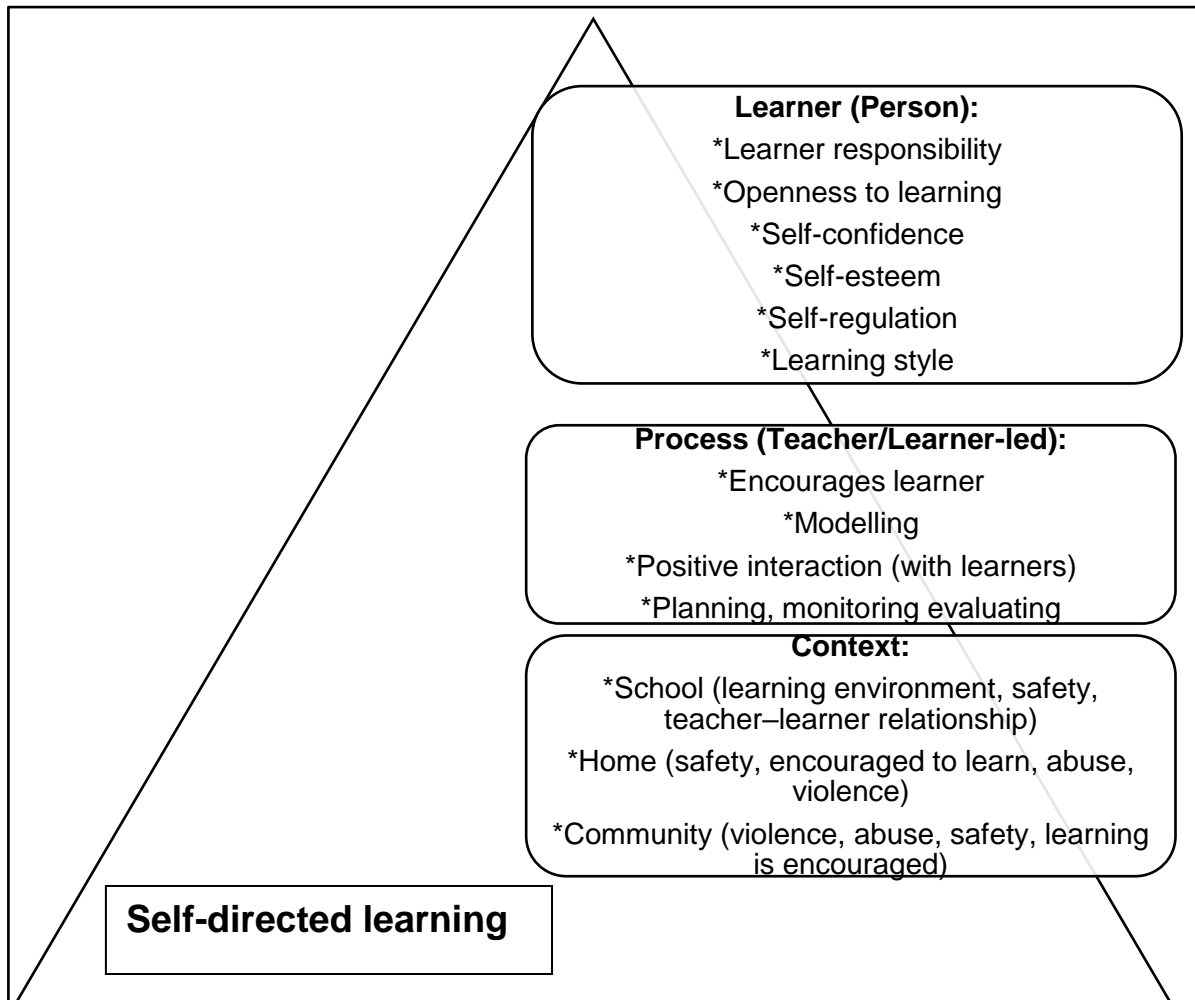


Figure 3.1: Brockett and Hiemstra's personal responsibility orientation (PRO), and person, process and context (PPC) model of SDL (adapted from Bosch et al., 2019, p. 10; ISSDL, 2021)

Figure 3.1 combines Brockett and Hiemstra's PRO and PPC models. Although the headings used are based on the PPC model, the information contained within each is a combination of the PRO and PPC model. I have done this to show that integrating these models provides a better understanding into the model.

3.3.1 Defining self-directed learning

As researchers have studied SDL, a few have developed their own definitions thereof. For comparative purposes, Table 3.1 illustrates a selection of different definitions and the years they were published.

Table 3.1: Definitions of self-directed learning

Definitions of Self-directed Learning		
Year	Author	Definition
1975	Knowles	“A process in which individuals take the initiative, with or without the help of others to diagnose their learning needs, formulate learning goals, identify resources for learning, select and implement learning strategies and evaluate learning outcomes” (Knowles, 1975, p. 18).
1975	Wood	Wood defines SDL as the competencies of the learner and not necessarily in the learning process. These competencies can include: (1) the ability to work independently; (2) to search for answers without help; (3) to manage their class time; (4) make use of study skills; (5) plan; (6) adapt activities to suit their own needs; (7) work at their own pace (Wood, 1975)
1977	Guglielmino	“Self-directed lifelong learning is the most basic ingredient for surviving and thriving in a world of change” (Guglielmino, 2003, p. 23).
1983	Krabbe	SDL is a learning opportunity where the learner can choose what to learn, how to learn, when to learn and how to evaluate the learning, therefore placing emphasis on the teacher to facilitate the opportunity for self-direction
1985	Mezirow	It is the ability of the adult person to critically reflect and make life changes and leaves aside the details of the learning process (Popović, 2012)
1991	Brockett and Hiemstra	They “view the term SDL as an instructional process centring on activities such as assessing needs,

		securing learning resources, implementing learning activities and evaluating learning” (Popović, 2012)
1997	Garrison	A methodology where learners are encouraged to take onus for their own learning by directing cognitive and contextual processes in constructing meaningful learning outcomes.
2002	Gibbons	“Self-directed learning is any increase in knowledge, skill, accomplishment or personal development that an individual (person) selects and brings about by his or her own efforts using any method, in any circumstances, at any time” (Bull, 2017, p. 27)
2021	ISSDL Symposium	“Self-directed learning is an intentional learning process that is created and evaluated by the learner” (ISSDL, 2021).

Knowles’s and Gibbons’s definitions have the following in common: (1) SDL is about the learner developing skills and self-confidence to be more than an impassive receiver of learning (Bull, 2017); (2) Both these definitions give a beneficial beginning for “thinking and talking about SDL” (Bull, 2017, p. 13). Learners are effective mediators, even leaders of their learning (Bull, 2017). Knowles and Wood (1975) agree that the learner or student should guide SDL.

A general definition for SDL is a method where individuals initiate their learning, with or without the assistance of others, to diagnose their learning needs, formulate their learning goals, identify resources for learning, select and implement learning strategies and evaluate the learning outcomes (Knowles, 1975).

3.3.2 Critical importance of self-directed learning

The ISSDL (2021) posits that SDL is the most natural way to learn. According to the ISSDL (2021), learning is vital to the individual's growth, adaptability, resilience and mental health. Cunningham (2010) posits that as children mature, improving their mental health and adaptability, they have an increasing yearning for autonomy. Gaining independence and incorporating SDL in their

learning means that they can shape their learning pathway. SDL enhances academic and job performance. It is the only way to adequately prepare learners for success in a future that we cannot predict (Guglielmino, 2021). SDL can support their lifelong learning. SDL is essential in 21st century learning as students need to become lifelong learners (Mentz et al., 2019).

3.3.3 The 21st century imperative

Guglielmino (2021) posited that because of the constant massive and unprecedented rate of change in the 21st century that is currently taking place in our daily lives, in the workplace and at schools and institutions of higher education, we should all become more self-directed in our learning if we are to survive and thrive. Learners, teachers, students and others continually evolve as they use SDL. Learners often do have a strong desire for SDL. Across learning spheres, we need to empower learners and students to develop their self-confidence, competence and SDL. For autonomy and SDL to thrive, teaching must be intentional, especially in 21st century learning. This means that learners need to either write or tell the teacher their own objectives at the beginning of a lesson or class. The facilitator needs to write a script using the learners' objectives to remind themselves to empower their learners and students, not to rescue them from ignorance (ISSDL, 2021).

Twenty-first century learning means that learners understand (master) subject matter while creating, blending and assessing information from a range of topics and sources with an awareness of and respect for diverse cultures (Rich, 2010). Twenty-first century learning is also the accrual of knowledge, work behaviours and soft skills, including "digital literacy, critical thinking" and problem-solving, that will assist learners in achieving their goals in the modern workplace (Eshat, 2012, p. 272). Work behaviours and soft skills can be learnt in stages.

3.3.4 Scale of self-directedness

SDL can be viewed in stages where the learner initially depends on the teacher. As they become more interested, the teacher motivates them and uses the ZPD (Vygotsky, 1978) to continue encouraging them as they become independent. The ZPD allows the teacher to support learners with a concept that they know and provides additional support as they learn a new concept. The more involved they become with the text/lesson/topic/subject, the teacher will act as facilitator/mediator in their learning, and the aim/goal is for the learner to become self-directed in their learning and possibly use an SDL instrument or scale (Williamson, 2007). The scales of self-directedness that will be discussed here are those formulated by Guglielmino (1977), Grow (1991), Williamson (2007) and Cheng et al. (2010).

Guglielmino (1977) developed the “self-directed learning readiness scale” (SDLRS) (cited in Guglielmino & Guglielmino, 2001, p. 37). Lucy Guglielmino (2001, p. 37) identified eight components that add to SDL: *“openness to learning opportunities, self-concept as an effective learner, initiative and independence in learning, informed acceptance of responsibility of one’s own learning, love of learning, creativity, future orientation and ability to use basic study skills and problem-solving skills”* [emphasised in original]. The components identified by Guglielmino for the SDL readiness scale are for workers to identify their own needs in the workplace and to improve the skills they require to perform better at their job.

Grow’s (1991) scale holds that all learners fall within one of four stages. At stage one, the learner depends on and needs much assistance and guidance from the teacher. At stage two, the learner becomes more interested, and the teacher needs to find various ways to keep the learners motivated. At stage three, the learner is more involved in the learning process and the teacher merely acts as a facilitator. Stage four, which is the highest level of self-directedness, the learner directs their learning and needs to only confer with the teacher (Grow, 1991).

Williamson (2007) endeavoured to create an instrument to assess learners’ levels of self-directedness in learning, referred to as the self-rating scale of SDL (SRSSDL). Williamson (2007, p. 68) stated that self-direction is the foundation for all learning. Whether it be “formal or informal, the effectiveness of learning is relative to an individual’s motivation”. The SRSSDL is a 60-item instrument that was created to assess the “level of self-directedness in one’s learning process” (Williamson, 2007, p. 68). Knowing the levels of the learners’ self-directedness will be beneficial to both teachers and learners.

Completing this self-rating scale will show learners their self-directed level and highlight their shortcomings. This will also show teachers where their (learners) deficiencies are. Teachers are then able to better prepare to support learners and guide them from learning dependence to independence (Williamson, 2007).

Cheng et al. (2010, p. 1152) developed an SDL instrument (SDLI) especially for nursing education, covering different programmes and grades. The SDLI was developed over four phases: phase one was to develop a new measurement instrument for SDL, phase two is to test the content validity, phase three was to “test the construct validity of the SDLI” (3rd version) and the fourth phase is to “test the internal consistency and reliability of the 4th version of SDLI [final version]” (Cheng et al., 2010, p. 1154). The concluding SDLI contained four areas of “learning motivation, planning and implementing, self-monitoring and interpersonal communication”

(Cheng et al., 2010, p. 1155). Learning motivation is defined as the internal ambition of the learner as well as the external drive that motivates the aspiration to learn and to seize accountability for one's learning. Planning and implementing are described as the aptitude to autonomously set learning aims and utilise suitable learning strategies and sources to successfully attain their learning objectives. Self-monitoring is explained as the skill to assess one's learning progression and results and to make advancement (Cheng et al., 2010). In the fourth domain, interpersonal communiqué is expressed as the capacity of learners to associate with others to foster their own learning (Cheng et al., 2010). They were encouraging learners to foster their own learning, which links to the gradual release of responsibility.

3.4 Gradual release of responsibility

The gradual release of responsibility (GRR) (see 2.10.1) plays a role in SDL and comprehension that “purposefully shifts the cognitive load from teacher-as-model” (Fisher & Frey, 2014, p. 2) as well as the role of facilitator and guides the learners through the process from being dependent on the teacher (teacher-led) to eventually become independent in their learning (learner-led) with the teacher acting as facilitator (see Figure 3.2).

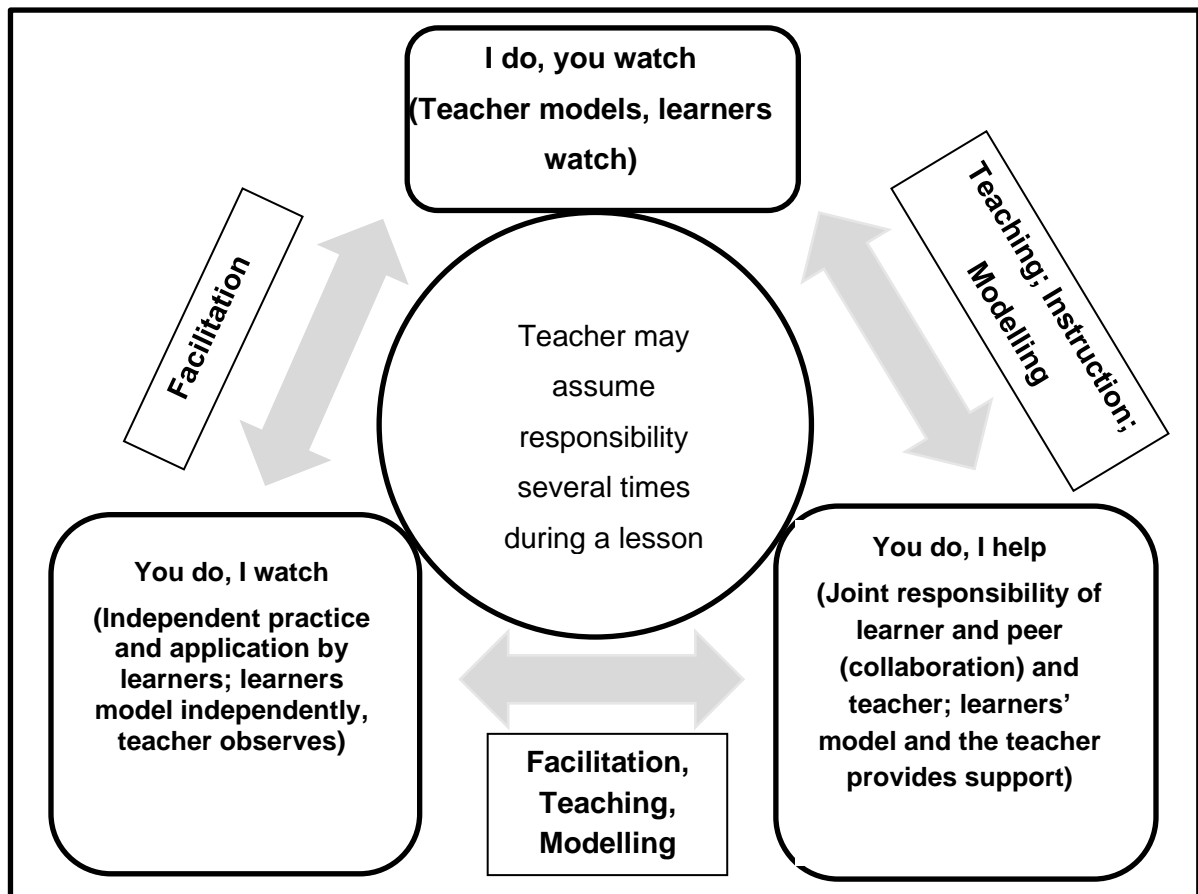


Figure 3.2: Gradual release of responsibility (adapted from Fisher & Frey, 2014; Hanekom, 2012; Pearson & Gallagher, 1983)

Comprehension instruction should contain components that allow learners to practice or engage fully with the text. Once learners have had opportunities to practice the comprehension strategies, the teacher would be the facilitator and not necessarily the instructor. They would have the freedom to move around, provide one-on-one support to the learners experiencing challenges and provide different activities to build their comprehension strategy base, for example a visualisation activity (De Koning & Van der Schoot, 2013). It is emphasised that the more specific the “comprehension instruction, the more likely children are to use those strategies in their everyday reading activities” (Woolley, 2011, p. 163). However, comprehension strategies, dissimilar to decoding skills, take time and practice to foster competence. Furthermore, the teaching of reading comprehension should present students with edifying, practical, and provisional knowledge while they are given ample guided practice with a range of texts and different genres. The guided practice would include the teacher providing one-on-one assistance to some learners and being a facilitator to other learners. Readers should be motivated to develop an array of strategies so that they can implement their selection and choose the direction over

their own strategy usage. In addition, stress “should be placed on the gradual release of teacher responsibility” for learners to learn to take command of their own “strategic processing” (see Figure 3.2) (Woolley, 2011, p. 163). To further enable this transfer of responsibility, as represented in Figure 3.2, teachers should complement direct teaching approaches by providing implicit learning opportunities so that readers can exercise self-determination through activities designed to promote self-discovery (Woolley, 2011). Figure 3.2 would also support teachers in assisting learners with barriers to learning so that they too can become autonomous in their learning.

3.5 Learner autonomy

Learner autonomy is the learner’s capability to take responsibility for their own learning (Little, 2007). The four components that are needed to encourage and promote learner autonomy are “knowledge, skills, motivation and confidence” (Chanthap & Wasanasomsithi, 2019, p. 77). According to Littlewood (1996, p. 428), “the more knowledge and skills the learners process, the more confident they may be when asked to perform independently; the more confident they are, the more they can mobilise their knowledge and skills to perform effectively”. For learners to achieve independence, they need to practise the knowledge and skills that they are acquiring.

With the educator creating the atmosphere to encourage learner autonomy, learners should actively take on more responsibility to become autonomous in their learning (Chanthap & Wasanasomsithi, 2019). The more responsibility that learners are willing to accept, the likelier they are to become self-directed in their learning. Learners taking charge of their learning is not an automatic development. The teachers’ role is to encourage and promote autonomous learning by encouraging learners to take charge of their learning (Chanthap & Wasanasomsithi, 2019). Hedge (2003) states that learners’ autonomy can boost their enthusiasm to read for a variety of reasons and to become independent readers who enjoy reading independently outside of the classroom. As soon as learners gain control over their learning process, they are ready to be independent learners (Chanthap & Wasanasomsithi, 2019).

Teamwork and communication between learner-and-learner and learner-centred are essential factors in encouraging autonomous learning, as the more input learners have in the process, the more valuable learning will be. Teachers are, however, also persuaded to create opportunities for learners to take on accountability for their learning so that they not only utilise this skill inside the classroom, but also in settings outside of it (Chanthap & Wasanasomsithi, 2019).

3.6 Self-regulated learning

Autonomous learning is closely linked to self-regulated learning and SDL (Sert & Boynuegri, 2017). When defining self-regulated learning, Zimmerman (2007) mentions the term “self-oriented feedback loop” and views the terminologies “self-esteem, self-concepts, self-actualisation” for surreptitious descriptions and “self-recording, self-reinforcement, and self-controlling” for explicit descriptions. Children with more self-regulated skills and awareness are those who are aware of their reading strategies and tend to be more successful at school and in later life (Muijselaar et al., 2017). Self-regulating learners are readers who actively pursue, question, explain and track their comprehension strategies to acquire meaning from the text they read. Self-regulating is key to metacognitive activities, as it plays a crucial role that allows individuals to elaborate and become more active and self-supporting, especially when reading for meaning is disrupted (Reed et al., 2002). As learners are taught self-managing and “self-regulation strategies” such as scheduling, checking progression, assessing strategy selection and using continuous constructive and rehabilitative reading comprehension techniques, it underpins positive impetus beliefs, self-awareness and enhanced self-worth (Woolley, 2011). The learner’s self-confidence is boosted as they become more self-regulated and independent in their reading.

Therefore, a metacognitive (see 3.6.1) instructional focal point will encourage learners to actively engage and improve their reading performance. “Metacognitive” means thinking about one’s own thinking and it refers to the processes used to plan, monitor and assess one’s understanding and performance. This is a key consideration because readers who are actively more engaged are more self-directed or self-managed, use more reasoning strategies and, as a result, gain more gratification and enjoyment from reading (Woolley, 2011). Self-regulated learning refers to deliberately and intentionally adapting the learning activities to attain learning objectives and enhance SDL (Winne & Hadwin, 2010).

On the other hand, when meaning is elucidated the competent reader may retrace the text by skimming to the start of the sentence to recall the essence of the sentence. In addition, it has been proven that developed self-regulatory reading actions can lead to better reading success, “reading self-efficacy and reinforce positive reading self-concept” (Borkowski & Muthukrishna 1992, cited in Woolley, 2011, p. 151; Chapman & Tunmer, 1997). Therefore, one of the most vital characteristics of becoming a skilful reader is the skill to become more and more self-regulating (Butler, 2002; Combs, 2001, cited in Woolley, 2011). This self-regulating facet can be monitored during oral reading practice; for example, a strategy that a reader can use when making a mistake is to read on and then correct themselves (Woolley, 2011).

3.6.1 Self-regulation strategies

To foster self-regulation behaviours, teachers need to model and support learners to participate in self-regulating behaviours (Zimmerman, 2002) (see Table 3.2). Reading is the first practical way teachers can teach learners to become self-directed and autonomous in their learning. Once learners have mastered the basics of reading (sounding out words and knowing some high frequency words, to name a couple), they can expand their reading options by the variety of books that they can attempt to read. As depicted in Table 3.2, the reading phases explained below elucidate what takes place before, during and after reading. It is anticipated that as learners progress through the phases, they will become self-directed and independent.

Table 3.2: The three reading phases (Zimmerman, 2002) (adapted from Woolley, 2011)

The three reading phases	
Phases	Developments
Before-reading phase <i>(Anticipation phase)</i>	Task Analysis Evaluation of tasks, setting goals (“process and product”), focused planning
During-reading phase <i>(Engagement phase)</i>	Self-control “Self-instruction”, concentration, strategies of the task, developing own thoughts, “self-recording”, self-inquiry
After-reading phase <i>(Introspection phase)</i>	Self-judgement Self-assessment, two-way acknowledgement, self-appraisal, self-reflection

Learners need to be metacognitively aware to monitor their reading development. Metacognition occurs when learners actively think about their thinking while they are reading. Within this context, metacognition within reading is used, as learners must actively think about their thinking while reading. Metacognition occurs within language (speaking) and comprehension and we are specifically looking at reading. When learners are supported to use expectation (foresight),

mindfulness and self-examination, they begin to move past destructive thinking and advance optimistic self-assuredness (Combs, 2001; Zimmerman, 2002). As depicted in Table 3.2, the reading phases explain what takes place before, during and after reading. These phases are important, as they are a guide for the teacher and, eventually, for the learners.

3.6.1.1 Before-reading phase

The teacher creates an atmosphere of excitement before reading or introducing a story for learners to be active participants and engaged during the lesson. For example, the teacher gives learners clues by asking questions or playing a game, getting learners excited and motivated about the story or text that will be read. Bandura (1999, p. 6) believed that “motivation is cognitively generated because people form beliefs about what they can do and anticipate likely outcomes through the exercise of forethought”. Motivation to want to listen or read a story can play an essential role in comprehending the text. The teacher's pre-questions should eventually lead to learners opting to ask their own questions before, during and after reading. According to CAPS English HL (DBE, 2011a), teachers in the Foundation Phase should ask learners to make predictions about the story by looking at the picture and learners answer open-ended and higher-order questions based on the text (p. 26). The development of pre-reading expands into task analysis.

3.6.1.2 Task analysis

Task analysis (see Table 3.2) is essential for successful self-regulation because it establishes the environment for future learning. It is also associated with how well the learner will do in an activity and the degree to which it is evaluated. “Task analysis refers to the purposes or reasons that individuals pursue achievement goals” (Pintrich, 2000; Zimmerman, 2002, cited in Woolley, 2011, p. 154). The motivation to achieve these goals often depends on their interaction during the lesson before the reading phase occurs.

The learners’ drive to achieve the goals set for the task analysis will all depend on the amount of effort put into and required for the activity. In terms of task strategies, learners will rely on their prior or background knowledge, and they will contemplate achieving the expectations of the task.

3.6.1.3 Goal-setting

As humans, we are all goal-orientated. The achievement or failure of our goals can lead to an emotional reaction or response. “A goal is a cognitive representation of what it is that an individual is trying to achieve” (Woolley, 2011, p. 154). Determining goals involves the assimilation of

thought, purpose and willpower processes. Setting specific goals for learners in terms of reading goals assists them in knowing what they are searching for and what their end goal may be. Learners are supported in comprehension of what they know they are reading if there was a previous goal or if they know the reason for the reading task (Zimmerman, 2002). Teachers also need to set specific task objectives for reading so that learners know what they are searching for and the direction they are going (Woolley, 2011). To develop self-regulation, learners need to be given opportunities to work with real-world activities and, in so doing, develop and use their prior knowledge to achieve the goal (Woolley, 2011). They also need to be given the opportunity to decide on their own goals, determine “their own reading behaviour by creating their own learning incentives” (Bandura, 1978, cited in Woolley, 2011, p. 155) and eventually regulate their own learning.

3.6.1.4 Planning

Learners need to be committed if they intend to reach their goals. When learners take the responsibility to engage in achieving a goal, they are more prone to maintain their travail until they achieve a prearranged criterion (Woolley, 2011). According to Jurado and Rosselli (2007, cited in Woolley, 2011), planning is the competence to comprehend, systematise, and utilise suitable methods and strategies to attain a predetermined goal. The learners need to recall their goals during the reading phase.

3.6.1.5 During-reading phase

Learners with barriers to reading (learners who have any form of difficulty with reading) commonly lack knowledge of useful reading strategies. They are frequently oblivious of when and how to use the knowledge that they do have. For example, they have difficulty inferring meaning between theoretical and superficial level facts (Woolley, 2011). They need to obtain skills to check their own comprehension strategies and interpretation.

For readers to create motivational goals and believe they can achieve them, they need sufficient cognitive strategies for reading comprehension. Having a sense of worth allows the learner to “believe that the particular strategy will improve their performance” (Schunk, 2003; Pintrich, 2000; Zimmerman, 2000, cited in Woolley, 2011, pp. 156-157). Proficient use of strategies increases the learner’s success, positively improves their self-concept and raises their self-worth. Learners also do need to know why, how and when to apply the strategies (Woolley, 2011).

Self-regulation is also further improved if there is a definite sense of task and the activity and the objective match each other (Woolley, 2011). For readers, this happens when the construction of the meaning of the task is progressing well. Thus, readers should be urged to actively take control of the development of meaning-making by choosing strategies and keeping track of their progress as a combined process of comprehension (Palincsar & Brown, 1984). For a reading activity to be attention-grabbing and engaging, it should not be too difficult or too easy for the readers. The choice of the text should be of interest to the readers.

Self-observation can cause learners to be more cognisant of their text of choice and where their interests lie. "Self-observation refers to self-recording of personal events or self-experimentation to discover the related causes and effects of these events" (Zimmerman, 2002, cited in Woolley, 2011, p. 157). For example, the learner's attention may be drawn towards them having problems in understanding a story. By becoming alert to their problem, they may try out various strategies. The strategies attempted can assist in compensatory reading.

3.6.1.6 Compensatory reading

Compensatory reading is reading where learners compensate for their shortfalls in comprehension. Not many fluent readers read at age-appropriate levels (Howie et al., 2016). For example, some learners may be able to read most texts given to them by their teachers. However, when asked to summarise what they have just read, the teacher may notice that they omit key sections. When asked to summarise the passage, the teacher is often surprised as they can recall what the comprehension passage is about (Woolley, 2011). We then have learners who read slower, although they are reading the same passage, they tend to pause often and they frequently mispronounce but can self-correct; however, they tend to lose the meaning of the text.

Although some readers are unable to read fluently, they can demonstrate that they can use compensatory strategies by slowing down their rate of reading to maintain comprehension (Woolley, 2011, p. 158). The compensatory strategies used by learners can be useful in the self-reflection phase.

3.6.1.7 After reading or self-reflection phase

Self-reflection is an important part of metacognition, should learners succeed in their reading comprehension. "A self-reflective approach to reading and comprehension should relate strategy uses with their motivational causes and performance outcomes" (Borkowski & Muthukrishna, 1992, cited in Woolley, 2011, p. 159). This means that learners need to reflect on their reading

and comprehension progress constantly, thus keeping them motivated throughout the process. Learners should constantly be motivated to consistently participate in self-monitoring and be shown how to check their own learning. Self-reflection and self-evaluation are two significant guidelines included in the planning of many successful instructional programs. “The key to self-direction and intrinsic motivation” is to create a learning environment for learners “whereby they are encouraged to work at their own purposes and questions during their reading” (Woolley, 2011, p. 160).

When learners are encouraged to make predictions prior to reading, they can test whether they have enough background knowledge about the subject matter. Teachers can then model questions such as “What clues in the text/story helped you with your prediction?” and “What parts of your prediction were in the story?” The learner can now assess their own efforts at meaning-making and ask similar types of demonstrated questions. Metacognition helps learners assess their attempts at making meaning of the teacher’s modelling. The teacher’s modelling can incorporate information and communications technology (ICT) to support SDL.

3.7 Self-directed learning and information and communications technology

According to Wong (2013, p. 319) “the proliferation of mobile technology has opened up or enhanced opportunities for more personalised SDL experiences beyond the four walls of classrooms” He further states that SDL be considered as the preferred result and that learning needs to be facilitated to achieve or attain the set goals (Wong, 2013). As such, a multimodal mobile approach fostering SDL is relevant for this study.

Using information and communications technology (ICT) in SDL has benefits and limitations. The benefits are:

- learners can work at their own pace
- they can go back to various sections as many times as they want to review the work
- their learning is self-directed as they can do further research to gain more information or to understand the work that they are doing
- receiving instant feedback on work covered and completed
- it caters for different learning styles
- work is self-paced in a self-directed manner
- guiding students to ask suitable questions when they are doubtful and knowing how to seek answers from a range of diverse sources are crucial skills that will benefit them by allowing them to become better self-directed learners (Ng, 2008).

It is important that the teacher gives clear instructions to scaffold the learners' direction of their own learning (Ng, 2008).

The limitations are: (1) teachers may not be able to adapt to a new way of teaching; (2) teachers think that the traditional method of teaching is better than using ICT; (3) the difference in learner and teacher thinking emphasises that their needs and expectancies are not quite in sync with each other. This difference could hamper learning and the learning processes (Ng, 2008; Winne & Hadwin, 2010).

However, although there are benefits and limitations to using technology, there is a connection between technology competence and SDL. Technology allows learners to have the technological skill and technology-enhanced instruction supports learner-centred classrooms, in which discovery learning and self-directed learners arise (Erben, Ban & Castañeda, 2009, cited in Sert & Boynuegri, 2017). Technology-enhanced instruction can assist learners in improving reading and reading comprehension.

To grow strong reading skills in learners while synchronously developing their autonomy, the application of technology in L2 (second language) classes seems encouraging (Chanthap & Wasanasomsithi, 2019). A study done by Hampel and Hauck (2006) has shown that integrating technology into the classroom offers unlimited access to different sources of knowledge in a target language and increases and encourages independence. Combining blended learning and widespread reading tuition with reading strategy instruction shows potential as a tool that allows learners to have active exposure to various reading materials. In a technology-based environment, teachers have less direct involvement in learner activities (Chanthap & Wasanasomsithi, 2019). Having learners who are motivated to read and attempt various reading strategies means that they can determine their own learning.

3.8 Self-directed language learning

A self-directed language learner is defined as an individual who regularly checks learning goals, controls behaviours and environment and selects methods of learning (Dickinson, 1987, cited in Du, 2013, p. 3). Mifflin (2004) and Taylor and Mifflin (2008) warned that a simplified and indiscriminate use of SDL could lead to learner anxiety; additionally, SDL does not compare to self-teaching. Making use of available resources, such as libraries, reading centres, audio recordings, social media, and even movies, can aid in developing learners' language skills. Audio recordings assist learners in developing and expanding their pronunciations. When learners immerse themselves in the second or third language learning (L2/L3) or first or second additional

language (FAL/SAL) or English second or foreign language learning (ESL/EFL), they should realise how it could be helpful (Navarro & Thornton, 2011).

Autonomous language learning is mostly encouraged amongst English second or foreign language (ESL/EFL) learners (Cotterall & Crabbe, 1999). The act of language learning is an active process (Ridley, 2003). Language learning is also an “interpretive process” (Ridley, 2003, p. 82). This means that learners need to interpret the words (in a sentence) to gain understanding. The teacher has a valuable role to play in learners learning the additional language (Ridley, 2003). The belief that learners have in themselves and their abilities to learn a language and the teacher’s encouragement and belief in them helps them achieve and improve their language capabilities. The teacher’s guidance and belief in them encourages self-directed language learner (Navarro & Thornton, 2011) and language learning.

Usodia (2003, cited in Ridley, 2003, p. 81) posits that learners becoming autonomous refers to the “process of self-regulation not only cognitively but also in a motivational sense”. Teaching learners to become autonomous in their language learning, teachers move away from the “traditional view of teaching” to a constructivist manner of facilitation (Ridley, 2003, p. 80). Facilitating language learning allows learners more freedom to practice the additional language and gain confidence in its usage. Metacognition is significant during language learning. EFL learners can also use mobile-assisted language learning (MALL) to improve or learn the language. As mobile technology is constantly being used, it should be easier for learners to access apps that teach them and where they can learn and practice the foreign language, for example Duolingo, Mondly, Drops, Busuu Rosetta Stone, to name a few. Although learners are using technology (MALL), it tends to have a “novelty effect”, because when learners become accustomed to using it, they tend to lose interest and are merely motivated when they initially start using it (Botero, Questier, & Zhu, 2018). This means that they may make progress initially, but then, as they lose interest, it begins to dwindle.

When learners are successful in their language learning, “insightful beliefs about the language learning processes, their own abilities” and the usage of applicable strategies that may possibly recompense for “possible weaknesses” (Victori & Lockhart, 1995, p. 225); these learners tend to improve their own learning style and gain an independent attitude towards their learning. The opposite occurs when learners do not believe in their abilities (Victori & Lockhart, 1995).

Improved metacognition apparently leads to more self-sufficiency through developed self-knowledge, more effectual strategies, a greater range of resources, and increased interaction with

the language. An independent approach seems to accelerate the learners' level of progress (Victori & Lockhart, 1995). Metacognitive knowledge is one of two terms incorporated into metacognition (see 3.6). When metacognitive knowledge is used in second language learning, it influences the learner's language learning and the "nature of language learning and teaching" (Victori & Lockhart, 1995, p. 224).

3.9 Metacognition

Metacognition is linked with "executive functioning" and has a noteworthy impact on learners' reading comprehension proficiency. Cognition is regarded as "planning, remembering and problem-solving" (Donald, Hardman, Lazarus, & Moolla, 2020, p. 108), as well as a variety of other ideas that occur in our minds. It indicates to learners the "awareness and knowledge of their thinking processes or strategies used during a learning activity such as reading" (Woolley, 2011 p. 39). This means that *metacognition* [emphasised in original] refers to the learners' mindfulness of the development of their own thinking and the skill to use these mental methods in their own learning (Woolley, 2011). It is stated that "metacognitive deficits are common" among learners with barriers to learning and are a key aspect "affecting reading comprehension performance" (Vaughn & Fuchs, 2003; Palincsar & Brown, 1987; Pressley 2002a, cited in Woolley, 2011, p. 39). Learners with barriers to learning often struggle to comprehend or fully understand the reading comprehension strategies fully, thus making metacognition difficult and affecting their executive functions.

Executive function controls our thinking methods, behaviours and functioning (Kirk, Gallagher, Coleman, & Anastasiow, 2009). The executive function can be described as "*metacognition or self-regulated*" [emphasised in original] and must be initiated by the learner (Kirk et al., 2009, p. 49). "Some of the serious learning problems faced by exceptional children appear to occur through the individual's inability to use the executive function properly" (Kirk et al., 2009). This means that they have difficulty solving problems, recalling information shared by the teacher and to plan their way through an activity. In constructivist terminologies, metacognition is a significant notion because, by using it, learners can vigorously connect with their own thoughts on a higher level (Donald et al., 2020)

Metacognition is also implicated in speech, as it signifies the ability to think about the significance of an expression that one perceives the sound and how to sequence and express one's sentiments when talking (Westwood, 2004, p. 7, cited in Landsberg et al., 2016, p. 159). This speech can be met in various contexts while considering and speaking about the language and

vocalisations (Polloway, Patton & Serna, 2008, p. 154, cited in Landsberg et al., 2016). Recording oneself and listening to pre-recorded stories using mobile devices allows learners to listen to the vocalisations and learn from them. These pre-recorded stories form part of multimodal learning.

3.10 Multimodal learning

Multimodal learning refers to the demonstration of learning which involves multiple sensory and action methods (Massaro, 2012). For this study, multimodal learning is the inclusion of the senses (visual, auditory, kinaesthetic, and tactile) into learning and utilising a variety of instructional elements, including ICT, to model when teaching and learning. Multimodal learning is quite beneficial for learners with learning challenges (Massaro, 2012). Sankey et al. (2010) state that “multimodal learning environments allow instructional elements to be presented in more than one sensory mode (visual, aural, written, tactile (manipulatives) and kinaesthetic” (p. 853). Ioannou, Vasiliou and Zaphiris (2016) and Sankey et al. (2010) posit that the learning environment can also be described as being multimodal. According to Ioannou et al. (2016), a multimodal learning environment has a two-fold meaning:

First, the learning environment used both physical and digital tools, it was connected to the outside world, and it was interactive. Second, the environment afforded the presentation and use of information in multiple formats such as text, pictures, diagrams, and audio (p. 7, cited in Olivier, 2020a, p. 14).

Incorporating the senses is especially helpful to learners in the Foundation Phase and learners with barriers to learning, as they too are still, at times, using their senses to learn (De Koning & Van der Schoot, 2013). Utilising the multimodal aspect provides further opportunities, such as pictures, listening to pre-recorded stories and using puppets and videos to tell a story to assist learners in achieving their set goals.

With the advancement of computer-based technologies in the 1980s and onwards, activities that required the application of multi-literacy skills and “the combination of the word and the image in the creation of multimodal texts” (Levy, 2009, p. 773) became popular (Tan, O'Halloran, & Wignell, 2016, p. 254). Howie et al. (2012) encourage teachers to use emerging technologies to support learners in reading and comprehension, thus developing their multi-literacy skills.

In multimodal learning, learners need to become *au fait* with various multi-literacies and be literate in different subjects (ICT/CALL) so that they encounter in the numerous subjects that are covered, for example, literacy in Mathematics, Science, History, Languages, Technology, and so forth.

Being multi-literate allows learners to transfer their knowledge of one subject over to another. The use of technology can enhance learning, but often teachers are not utilising this option, even for reading (Howie et al., 2012). Teachers can utilise multimodal reading instruction (Tennent, 2015) through the integration of technology as well engaging the learners' sensory modes to teach comprehension strategies without having to read the passage to learners. With proper planning and correct use, lessons should be structured to meet the criteria of the intended curriculum.

Learner populations in schools across South Africa are increasingly characterised by cultural, linguistic, socio-economic, physical and intellectual diversity (Cochrane Bond, 2019). To meet the criteria of the intended curriculum and including the diversity that is present in classrooms, teachers should be able to accommodate learners' learning styles and needs by designing and utilising multimodal resources and including learners in designing and developing their own multimodal resources (Cochrane Bond, 2019). The four levels of multimodality can assist teachers with this. The four levels of multimodality that are used are (1) individual multimodality; (2) interactional multimodality (modes of communication); (3) instructional multimodality (modes used for learning and teaching); and (4) institutional multimodality (modes of delivery, for example online, face-to-face or a hybrid of the two) (Olivier, 2020a, p. 57). These four levels of multimodality can be used from the Foundation Phase to higher education and beyond. It is merely the complexity of each level that will differ.

3.11 Social semiotics theory

Social semiotics is based on Halliday's (1978) work, where he developed "a social semiotic account of language" in which "meaning-making is conceptualised as choice from a range of interlocking options" (Stein, 2008). Halliday also claimed that the "grammar of a language is not a set of rules" but "a resource for making meanings" (1978; cited in Stein 2008). Social semiotics is the underlying theory for multimodality and by implication multimodal learning. Kress (2009), however, defined social semiotics as a theory of conceptualisation and communication that postulates that signs are always newly created, that all sign-making is based on the interest of the creator of the sign, who makes signs as the motivated relation of a form which suitably conveys the meaning to be understood. Semiotics is the investigation of signs and symbols, of which written language forms a part, including pictures and their meaning in society (Semiotic Terminology, 2022).

According to Bezemer and Jewitt (2009):

[s]ocial semiotics is concerned with meaning makers and meaning making. It studies the media of dissemination and the other modes of communication that people use and develop to represent their understanding of the world and to shape power relations with others.

Records of meaning-making, such as historical objects and transcripts and “texts” are used to study the fabrication and distribution of discourse across the range of social and cultural settings within which meaning is made.

Bezemer & Jewitt (2009, p. 5) cite Halliday (1978), stating that the “semiotic resources of language are shaped by how people make meaning – the social functions they are put to. He holds that every sign serves three functions simultaneously: (i) they express something about the world (ideational metafunction), (ii) position people in relation to each other (interpersonal metafunction) and (iii) form connections with other signs to produce coherent text (textual metafunction)” (Bezemer & Jewitt, 2009). For Halliday (1978 cited in Bezemer & Jewitt, 2009), social semiotics connects (relates) to the study of the social attributes of meaning and meaning-making. A crucial feature of the social semiotic theory is the principle that modes of communication offer historically specific and socially and culturally pooled semiotic resources for communicating (Halliday, 1978; Kress, 1997; Van Leeuwen, 2005). Olivier (2020a) states that the “roots of social semiotic theory are in linguistics” (p. 6). Wong (2019, p. 1) makes the following statement:

Social semiotics is a social theory of meaning and communication modelled on Michael Halliday’s theories of language as social semiotic and Systemic Functional Grammar with a particular focus on the agency of social actors and social context.

Halliday (1978, p. 108) also coined the elements of the socio-semantic theory. He states that specific universal concepts seem to be vital components in a socio-semantic theory of language. These components are the “text, the situation, the text variety (register), the linguistic and semantic system, and the social structure” (Halliday, 1978, p. 109). The text is a semantic entity; it forms the most rudimentary part of the semantic procedure. The situation is the setting where the text comes alive. A register can be described as the structure of semantic resources that the delegate of society typically connects with a situation type (Halliday, 1978, pp. 109–111). The interpretive scheme is of prime concern in a sociolinguistic context within the etymological structure.

Kress (2010) posits that “social semiotic theory is interested in meaning in all its forms”. These forms can be through body language, images, multimedia and so forth. Olivier (2020a) states that social semiotic theory has its roots in linguistics. “In a social semiotic theory, signs made outwardly are seen as the best evidence that we can get for understanding the ‘inner’ processes of learning” (Kress, 2009, p. 34).

Digital media is being utilised and distributed more as learning resources than textbooks. Writing is being set aside for images instead. However, in 2005, Kress (2010) questioned the lack of the “designs of learning resources and their potentials for learning”. As digital media is constantly evolving, the learning resources should also be evolving and be updated. ICT aids meaning making by learners, which in turn smooths the progress of thinking and knowledge constructions (Ho, Anderson, & Leong, 2011). Researchers who are interested in tracking the progress and transformations in teachers and learners utilise ICT (Ho, Anderson, & Leong, 2011, p. 24)

There appears to be a gap in the literature regarding discussions around the Foundation Phase in terms of colour, image, space, gestures, intonation, body language and sign language, which are critical in learning language structure, grammar and comprehension. For learners to learn about abstract language concepts, multimodal semiotics is relevant, as it aids in the learners learning of the concepts.

3.12 Multimodal pedagogies

For young learners, especially those in the Foundation Phase, to learn the function and structure of language and abstract grammar through play-based programmes is in line with the Vygotskian approach to learning (Cochrane Bond, 2019). Learning through play means that they can experiment with language and grammar.

As learners can experiment with language and grammar through play, they can use the language and grammar, as well as reading, by becoming active designers of their learning by, for example, drawing a picture of their favourite part of a story that was read to them; groups can actively listen to a pre-recorded story and then draw a picture about the story (Nouri, 2019). As active designers of their learning, they can increase their SDL usage with the guidance and support of the teacher. The teacher can create opportunities and encourage learners to practice their SDL as they are learning to become independent readers and designers of their learning. The learner can be defined as the “meaning-maker-as-designer” (Nouri, 2019, p. 686). Today, knowledge is acquired through continuous connection to worldwide digital knowledge and we are contributors to the

creation of this knowledge. This production of digital literacy plays an important role in our lives as ICT is integrated into our “communication landscape” (Nouri, 2019, p. 684).

3.13 Multimodality

Individuals do not communicate merely by utilising language (Jewitt, 2013). “Multimodality, the study of the interaction of language with other semiotic resources such as images and sound resources has significant implications for computer-assisted language learning (CALL) with regards to understanding the impact of digital environments on language teaching and learning” (Tan, O'Halloran, & Wignell, 2016, p. 253). CALL may have a positive effect on learners with barriers to learning. For example, they can follow a story while reading the words that are highlighted aloud. Learning in the 21st century has given learners more options when learning. “Multimodality provides an inclusive research lens” (Jewitt, 2013, p. 6). This research lens enables “technologies and objects” that are a part of our everyday lives, gives us the opportunity to engage with it, and thus see it differently.

Multimodality can be used across the curriculum, especially when teaching comprehension, including content (History, Geography, Science, Mathematics) subjects. Exposing the learner to a variety of multimodal texts may increase or enhance their comprehension learning. Multimodality is the utilisation of numerous semiotic modes in the plan of a semiotic outcome or event, together with the modes in which they are combined (Kress & Van Leeuwen, 2001).

Mode is central to multimodality as it is the selection from linguistic, visual, gestural, audio and spatial semiotic resources (Kress, 2003). A mode is also a social and cultural resource for making meaning (Kress & Bezemer, 2008). In modes there are differences between an image and the explanation that accompanies it. There may be an emphasis in the explanation regarding a section of the image but the emphasis is not portrayed in the image (Kress & Bezemer, 2008).

In the Foundation Phase, modes in the text are colour, intonation, gestures, space and images. Intonation is especially crucial when reading aloud (see 2.8), in addition to images and colour for young learners (Thompson, 2008). All of these are pertinent in multimodal learning. The “text” that learners learn to read is not only for language structure and grammar but also for Mathematics (reading graphs, symbols and word sums, for example). The “text” can also include pictures. Therefore, learners must learn multi-literacies in multimodal learning (Thompson, 2008). According to Kress (2003), multimodality needs “new literacies” (Hampel, 2020). The “new literacies” can include CALL, online maths games, online read-aloud stories, using textbooks in soft copy, a walk through a gallery and visiting a museum online, to name a few.

People interact in various ways with each other and things “through the use of gesture, body language, gazing, facial expression and moving around in the spaces they occupy” (Jewitt, 2013, p. 1). Multimodality “attends to all aspects of communication and investigates the interaction between communication needs” (Jewitt, 2013, p. 2). Multimodality takes an all-inclusive outlook at our collaboration and communiqué and therefore does not consider only one facet of modes (Jewitt, 2013). It also highlights the importance of the “social context” (Jewitt, 2013, p. 2) and the availability of resources that assists individuals in making meaning.

3.13.1 Definition of multimodality

Multimodality can generally be defined as any form of communiqué that makes use of more than one medium to communicate meaning (Gaudin, 2019). This means that communication can take the form in language (verbal or written), gestures, body language, gazing and video clips, to name a few. The term multimodality is used to define the diverse modes of human communication, viz. visual, verbal, gestural, and so forth. Several web-based writings connect meaning through a delicate interaction between different meaningful modes (Tan Wee Hin & Subramaniam, 2009). Table 3.3 contains some definitions of multimodality.

Table 3.3: Multimodality definitions

Multimodality definitions		
Author	Year	Definition
Kress and Van Leeuwen	2001	Multimodality refers to the interplay between different representational modes, for instance, between images and written/spoken word. Multimodal representations mediate the sociocultural ways in which these modes are combined in the communication process (Kress & Van Leeuwen 2001, p.20, cited in Korhonen, 2010)
Kress	2003	“Multimodality is a theory which looks at the many different modes that people use to communicate with each other and to express themselves” (Kress, 2010, p. 55).

The above-mentioned definitions give a broader understanding of what multimodality is. It also illustrates that multimodality includes technology.

3.13.2 Multimodality and technology

Technology has “reshaped modal practices” (Jewitt, 2008, p. 10). Technology makes allowances for more variety of textual practices in the classroom. These allowances impact the “pedagogic relations and textual practices” within the classroom (Jewitt, 2013, p. 10). Technology can also change how interactions between the learners, teacher and the school occur. The use of the physical environment of the classroom has begun changing since the introduction of digital technology (O’Halloran et al., 2019). Learners have access to smartphones, laptops, tablets and other devices for them to utilise to participate and connect with learning materials; furniture is also portable for various arrangements such as individual or group work or sitting and working on the floor in small groups. “Digital environments create very different experiences for teachers and learners” (O’Halloran et al., 2019).

Multimodal technologies, such as video, audio and text chat, have begun to gain access to a range of learning milieus. Technology supports the “transformational of monomodal learning practices into multimodal learning practices” (Nouri, 2019, p. 695). The teacher takes more of a candid teaching role in the “scaffolded stage” and more of a “guiding role” during the “collaborative stage” (Ho, Anderson, & Leong, 2011, p. 18).

3.13.3 Multimodal modelling

When teachers model, for example, comprehension strategies, they show learners how to apply each skill. These skills are practised until learners can work independently (Olivier, 2020a). “By incorporating multimodal modelling of the reading comprehension strategies, we will be able to incorporate the different learning styles, namely visual, auditory, written, and kinaesthetic into our teaching” (Sankey et al., 2010). By combining the different learning styles, teachers can reach more learners during lessons, thus supporting the use of comprehension strategies. Therefore, by including the different learning styles, teachers can reach more learners during lessons, consequently supporting the use of comprehension strategies and extending to reading.

Reading itself requires different modes and it needs “access to different knowledge” when compared to reading in a “digital context” where reading needs “understanding across different modes” as well as “understanding the principles and values of the design” (Jewitt, 2013, p. 19).

“Teaching comprehension” and portrayal of the use of body language do not have to be restricted to spoken English lessons, as it can be incorporated into the subject matter covered by “Language, Literature and Literacy” (Ngo, 2019, p. 125). Movement is acknowledged as a “non-verbal meaning-making resource” applied in verbal communication (Ngo, 2019). Information about movement and its support of meaning-making have the possibility to support the “teaching of listening and speaking comprehension and composition in the multimodal classroom” (Ngo, 2019, p. 117).

According to De Koning and Van der Schoot (2013), very little attention is given to the visualisation (see 2.9.5; 3.11) of texts as a strategy for comprehension. Teachers can model visualisation by sharing their mental picture with learners and then guiding learners to create their own mental images.

3.13.4 Multimodal texts

According to Serafini (2012, p. 27) “as the world told becomes the world shown, the texts of the 21st century will require new skills, strategies, and new pedagogies to support students’ transactions with these multimodal, multimedia texts”. In promoting 21st century learning by using technological tools such as tablets, laptops and smartphones, learners can become skilled in the various applications (apps) that are used to create, revise and publish their own multimodal texts (Zammit, 2019, p. 51). The teacher plays a vital role in aiding 21st-century learning (Bosch & Laubscher, 2020). The necessary skills that complement new skills are the four Cs, namely creativity, collaboration, critical thinking and communication skills (Bosch & Laubscher, 2020, p. 119; De Jager & Feez, 2017, p. 51). These four Cs are also utilised in comprehension (see 2.7). Teachers are now required to support the assimilation of technology and develop their own technological pedagogical content knowledge and be mindful of the new skills they and their learners need to acquire (Zammit, 2019).

Multimodal texts include written, spoken, print and digital texts (Serafini, 2012, p. 27) and as part of the communication, which is language-based, to enhance the meanings with gestures and facial expressions, observations and with aspects of community perspectives. There is no pre-determined pathway that readers must follow in multimodal texts compared to deciphering written language (Kress, 2003). Any multimodal text or image can include arrangements that may lead the viewer’s eyes in a specific way and give prominence to visual grammar that attracts one’s attention to parts of a multimodal text (Kress, 2003).

Multimodal texts that comprise of written text, visual images, graphic components, hyperlinks, video clips, audio clips and other modes of representation, such as colour, gestures and body language, require different strategies for navigating and comprehension (Kress & Van Leeuwen, 1996; Zammit, 2019). These texts and visual images will remain to dictate our literate settings into the forthcoming future (Serafini, 2012). Because of technological changes, we may never go back to a time when written text is presented without any supplementary visual images (Serafini, 2012). Therefore, teachers need to find ways to acknowledge these changes and find methods to integrate the multimodal texts that readers contend with outside the school into their classrooms and didactic collections (Serafini, 2012).

Any multimodal text or image can include structures that may lead the viewer's eye in specific directions and give distinction to (visual) grammar (Kress & Van Leeuwen, 1996). As the difficulty of texts readers come across increases, decoding, which is a separate skill, becomes less essential as an indicator of comprehension, and it should only be one feature of the reader's expertise to steer the multimodal landscapes encountered (Serafini, 2012).

Interactions of multimodality include "body language, gestures, speaking, intonation", and so forth. (Ngo, 2019, p. 116). All these interactions have an impact teaching and engaging with various multimodal texts. Body language is a "powerful mode of meaning-making" (Ngo, 2019, p. 115) that can supplement the meanings made by oral language. This supports the development of verbal language skills of speaking and listening, whereby the building of knowledge of comprehension is improved through speaking and intonation.

The development of both teaching resources and methods regarding gestures, as well as fostering learner's ability of the effective use of verbal interactions is significant (Ngo, 2019). Resources that can be made use of are "picture books, movies and graphic novels" (Ngo, 2019, p. 125). As picture books and graphic novels are hard copies, it is easier for younger learners to use them as starting points, as it is easier for them to imagine (Ngo, 2019).

Multimodal texts have more than one mode, for example sound, picture and print. Multimodal texts are typically digital texts; however, it can be a book, such as a Big Book, picture book, expository text or illustrative text. These multimodal texts need more than one mode of processing as well as the identification of connections between modes. The described process are dissimilar from the linear reading of print-based texts (Tan Wee Hin & Subramaniam, 2009, p. 45).

3.13.5 Modes of meaning-making

The modes of meaning-making consist of linguistic, audio, spatial, visual and gestural proposals. Modes are various instructional methods. The elements of the linguistic strategy include vocabulary and metaphor, information structures, delivery of linguistic plans, global coherence relations, local coherence relations and normalisation of processes and modality (The New London Group, 1996). The audio plan consists of sound effects and music. The spatial proposal's components are ecosystemic and environmental meanings and architectural associations (The New London Group, 1996). The visual model's essentials include "colours, perspective, vectors, foregrounding and backgrounding" (The New London Group, 1996, p. 83). The gestural components comprise behaviour, body movements, "gestures, sensuality, feelings and affect" (The New London Group, 1996, p. 83), as well as movement, the learner's proximity to others, and so forth. When trying to find meaning in terms of comprehension, learners need to use of these modes to bring about understanding.

Learners need to find meaning when reading for comprehension. Reading here is used in a much broader sense, as it can include reading body language, facial expressions, drawings, music, talking and tone. Making meaning in comprehension means that the learner needs to understand and look at various modes of communication to create some form of understanding (Narey, 2017).

Viewing comprehension through a multimodal lens means that the modes of communication are not singular. Making meaning through various modes, as mentioned above, assists the learner with comprehending the text, picture and music, to mention just a few modes (Narey, 2017). By using these different modes, the learner begins their journey of self-directed multimodal learning.

3.14 Self-directed multimodal learning

Self-directed multimodal learning is two separate entities that have been brought together by necessity. In the literature, they complement each other. Each one has its strengths and shortcomings but bringing them together within a single framework shows their complementary nature and strengthens them, especially in terms of technology. Multimodal learning gives attention to all aspects of communication, not only specific ones (Jewitt, 2013) and being self-directed means that the learner is able to explore independently, using technology. Technology has grown exponentially during the 21st century. As researchers, we need to find ways to balance self-directed multimodal learning by blending learning with multimodality and encouraging learners to become self-directed in their learning (Olivier, 2020b).

In the instance of multimodal learning the usage of ICT has consequences for SDL (Olivier, 2020a). Candy (2004, pp. 52–59) notes that there appears to be a reciprocal relationship between SDL and technology, as one affects the other (cited in Olivier, 2020a, p. 11). This reciprocal relationship gives learners the opportunity to browse or use technology to search for information, produce their own resources, utilise resources created by the teacher or generate given assignments, which allows learners to enhance their SDL and incorporate multimodal learning.

ICT blended learning can support self-directed multimodal learning as learners will be exposed to a variety of modes to encourage learning environment and motivation (Dey & Bandyopadhyay, 2019; Kress & Van Leeuwen, 2001). To achieve self-directed multimodal learning, blended learning needs to be established to establish autonomy through multimodal learning (Dey & Bandyopadhyay, 2019).

3.15 Conclusion

In this chapter, the researcher addressed one of the research questions, namely “How can multimodal modelling of reading comprehension strategies be implemented by teachers in the Foundation Phase and how can teachers foster self-directed learning?”. The concepts of SDL, multimodality and multimodal learning through reading comprehension were investigated based on key scholarly works in this field.

The GRR for comprehension instruction is included as self-regulated learning connects to reading success. The teacher’s use of technology before, during and after reading allows for blended learning to be incorporated. The various reading strategies lead learners to determine their own learning, as a reciprocal relationship exists between SDL, multimodal learning and technology (ICT). ICT plays a crucial role in SDL and developing reading and reading comprehension skills.

The following chapter describes the research design and methodology that were used to gather information to answer the research questions.

CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

4.1 Introduction

This chapter describes the research process and offers insight into the research approach followed in this study. The chapter also clarifies the selection of participants, collection of data and data analysis. It further stresses the verification of qualitative data and the research limitations. Regarding reflexivity, the chapter concludes by discussing the researcher's position in this study regarding the following research question: “How can multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase improve comprehension skills?”

This research also involved an intervention series presented to teachers via Zoom. The research method needed to change due to the Covid-19 pandemic as the researcher was unable to gain any access to learners. The teachers were from schools across the Western Cape. During the online intervention series sessions, the researcher modelled the reading comprehension strategies and empowered teachers to attempt the multimodal modelling in their classes.

4.2 Research paradigm

4.2.1 Interpretivism

The research is underpinned by the interpretivist paradigm. According to Ryan (2018, p. 15), “interpretivism argues that truth and knowledge are subjective, as well as culturally and historically situated, based on people’s experience and their understanding of them”. Interpretivism is also referred to in the literature as constructivism because meaning-making is socially constructed. This means that the interpretation of the information shared with people may be interpreted in a biased or prejudicial manner.

Interpretivism accepts that people create and combine their personal and intersubjective meanings as they mingle with the world around them (Okeke & Van Wyk, 2015). According to Hays and Singh (2012), interpretivism is all-inclusive because it acknowledges multiple perspectives of different people from diverse groups (Thanh & Thanh, 2018). Interpretivism does not concern itself with whether facts exist in a current situation but how the facts are interpreted (Okeke & Van Wyk, 2015). Interpretivism is often used in qualitative research (Taylor, Bogdan, & DeVault, 2016).

Qualitative research is used across diverse disciplines including interpretivism (Maree, 2019). Interpretive researchers use qualitative research methods to examine, understand and explain social authenticities (Cohen et al., 2018; Tubey et al., 2015). The interpretivist researchers view the world as “constructed, interpreted and experienced by people” through their interactions with one another and society (Tubey et al., 2015, p. 225). Interpretivism incorporates partiality and recognises multiple veracities and connotations. Interpretivist research is determined by its “trustworthiness, credibility, transferability and confirmability” (Cohen et al., 2018; Maree, 2019; Rapley, 2017).

4.3 Research methodology and design

Creswell et al. (2020) posit that a research design consists of the following: the methodology of the study, the philosophical orientation of research, the population and sampling method for the study, data collection strategies and the analyses and interpretation of data (p. 56). The research design describes the research structure that directs the research process (Lavrakas, 2008). The research design considers the study’s outcome and the steps in the research process that aid in achieving the outcome, such as the outcome of the research question and generating the necessary data (Maree, 2019). This study’s research design will follow a qualitative design to formulate, plan and design the steps of the study (Cohen, Mannion, & Morrison, 2018). Qualitative research is an emergent, inductive, interpretive and naturalistic method applied to research people, phenomena, social conditions and practices in their natural environment to make known in descriptive terms the meanings that people assign to the experiences in their life’s reality (Yilmaz, 2013). Maree (2019, p. 56) states that qualitative research is “an exciting interdisciplinary landscape comprising diverse perspectives and practices for generating knowledge”. The qualitative paradigm perceives “the knower and the known as inextricably connected” (Yilmaz, 2013, p. 312). Therefore, the researcher refrains from shaping the research phenomenon and describes it from the viewpoint of the people involved (Patton, 2015; Yilmaz, 2013). Qualitative researchers attempt to understand how social experiences are constructed and the meaning people attach to them (Merriam, 2009). Creswell (2013) describes qualitative research as multifaceted, rooted in real-world experiences and interested in exploring culture, society and actions through analysing people’s behaviour and words. Hammersley defines qualitative research as follows:

[Qualitative research is a] form of social inquiry that tends to adopt a flexible and data-driven research design, to use relatively unstructured data, to emphasise the essential role of subjectivity in the research process, to study several naturally occurring cases in detail, and

to use verbal rather than statistical forms of approach (Hammersley, 2013, p. 12, cited in Cohen et al., 2018, p. 9)

Hammersley's definition of qualitative research tends to be adaptable and driven by data. The data itself is subjective in nature and the research takes place in the participants' natural environment. Now that the research design has been outlined, I will explain the population and sampling.

4.4 Population and sampling

The sample population was determined by purposive sampling. Foundation Phase teachers comprise the purposive selection (Okeke & Van Wyk, 2015) of elements that fit the research criteria. The teachers were selected with the aid of a neutral person. For this research, the population consists of all teachers working in the Foundation Phase at Western Cape Education Department schools that meet the research criteria. The researcher was provided with a list of these schools from the WCED district offices, namely Metro North Education District (MNED), Metro Central Education District (MCED), Metro South Education District (MSED), Metro East Education District (MEED), West Coast Education District, Overberg Education District, Cape Winelands Education District and Eden and Central Karoo Education District (ECKED). I selected forty schools from the list provided based on the inclusion criteria to ensure representativeness. I used these forty schools to purposively (Merriam, 2009; Okeke & Van Wyk, 2015) select a sample of twenty teachers to participate in the study. The sample needed to adhere to the following participant criteria: Foundation Phase teachers teaching at WCED schools.

The sample, which was purposively selected, the characteristics and the size of the sample could not be completely determined as it depended on factors that would only emerge, as the study unfolded (Cohen et al., 2018; Maree, 2019). This meant that the researcher was reliant on attaining permission from the school principals and securing teachers' consent to participate in the online intervention series (Ahola & Lucas, 1981; Cohen et al., 2018).

4.5 Data collection

Data were collected using teacher questionnaires (Annexure I), semi-structured interviews (Annexure L), and a focus-group interview (Annexure K).

4.5.1 Data collection approach

Data were collected via an online platform.

4.5.2 Data collection instruments

The data collection instruments used in the research were open-ended teacher questionnaires, a semi-structured interview with teachers via Zoom and an online focus-group interview with information-rich participants. The teacher questionnaire was created with the data analysis in mind (Cohen et al., 2018). The research questions and the findings of the results of the systemics (Schaffer, 2022) were used as the basis for the open-ended questionnaire.

The aim of the teacher questionnaire (Annexure I) was to gain information about how teachers teach reading comprehension in the Foundation Phase, how teachers fostered SDL, multimodal modelling and the incorporation of technology in the classroom (Cohen et al., 2018). Wilson and McLean (1994, cited in Cohen et al., 2018, p. 473), ensured that the questionnaire is “clear on what needed to be included to meet the purposes and research questions”, it is “exhaustive in its inclusion of items” and “elicited the appropriate kinds of data to answer the research purposes”.

4.5.2.1 Open-ended teacher questionnaire

A questionnaire with open-ended questions for teachers ($n = 12$) to answer (Okeke & Van Wyk, 2015) was circulated via e-mail (see Annexure H). The researcher attained email addresses from all participants after attaining informed consent. The open-ended teacher questionnaire was developed with the research questions and data analysis in mind. It was deemed valid by experts in the field who scrutinised the document (Maree, 2019).

4.5.2.2 Semi-structured interview of teachers

A semi-structured interview ($n = 9$) was arranged around a detailed set of questions or themes that were stated prior to the interview (Babbie & Roberts, 2018). Maree (2019, p. 108) states that in a semi-structured interview, there are specific open-ended questions that are asked, and these are then followed by further “probing questions”. These probing questions can be asked if the researcher remains attentive during the interview and if it is directly linked to the research study. Because of Covid-19 restrictions, the semi-structured interviews took place via an online platform, namely Zoom.

4.5.2.3 Focus-group interview of information-rich participants

A focus-group interview ($n = 2$) is an interview technique where several participants are brought together to discuss a certain subject or problem (Babbie & Roberts, 2018). A focus group is usually led by a mediator who assists in mediating the discussion and ensures that no one

controls the discussion while inhibiting as little as possible in the conversation (Babbie & Roberts, 2018). The advantage of having a focus-group interview (Annexure K) is that during the discussion, one person’s comment may trigger elicit a response from another participant. The disadvantage of focus-group interviews is that confidentiality cannot be guaranteed, as a participant may discuss the topic with someone outside of the group.

4.6 Intervention series

An intervention series (cf. Figure 4.1) was presented to teachers as part of the research (see 1.5.7). This was due to the Covid-19 pandemic preventing the researcher from interacting and observing learners. The researcher had to present online sessions to teachers (*n* = 12) via Zoom (Kim, 2020). The online sessions were reduced from three to two sessions because of teachers after-school activities and regular power outages needed to be taken into consideration.

What informed decision?	Organisation	Content	Role of intervention series
<ul style="list-style-type: none"> •Covid-19 pandemic impacted the decision 	<ul style="list-style-type: none"> •Teachers availability •Power cuts •Online Zoom sessions 	<ul style="list-style-type: none"> •Reading comprehension strategies: <ul style="list-style-type: none"> * Asking questions * Making predictions * Making inferences * Summarising •Multimodal modelling •Engaging with the 5W/H method •Reading across the curriculum •Sentence writing and sentence construction 	<ul style="list-style-type: none"> •Provide teachers with additional skillset •For teachers to understand the purpose of and incorporate multimodal modelling when: <ul style="list-style-type: none"> * Asking questions * Making predictions * Making inferences * Summarising •Develop sentence construction using the 5W/H method

Figure 4.1: The role of the intervention series

The aim of the research was to empower teachers with another skillset. The research was specifically aimed at Foundation Phase teachers. The first session explained the terminology used in the research question to prevent any confusion and ensured that teachers understood the question. The difference between strategies and skills was explained thereafter. The integration of subjects and reading across the curriculum were framed for teachers, as well as how asking questions would develop learners’ comprehension skills across the curriculum. By

incorporating the schema theory, the teachers were shown how to tap into the learner's previous knowledge as this is important in the learner's development of making inferences, predictions and making connections. The 5W/H method (Who, When, Why, What, Where and How) and 4W/2H (Afrikaans – Wie, Waar, Wat, Wanneer, Hoe en Hoekom) were discussed. These were all discussed under the umbrella of the BLA. The content of the second session began with a recap of the previous session's terminology and the reading comprehension strategies that were identified in CAPS (DBE, 2011a), namely asking questions before, during and after reading, clarification, making predictions and making connections across the curriculum. These strategies were modelled by using multimodal modelling and including different storybooks, pictures, creating stories to show how the strategies were incorporated and used. The back and forth in the modelling was important as novice teachers were also part of the groups and it showed teachers the importance of continually asking questions to develop learners thinking skills.

The third session was designed to show the teachers how to incorporate the comprehension strategies into daily activities, such as guiding learners to write their own stories by using questions to guide their sentence writing and construction. This session also highlighted that through developing the learners reading comprehension skills, teachers can foster self-directed learning and develop the learners critical thinking. It was explained to teachers that teaching strategies are the ones that teachers use when teaching a new concept in language, e.g. verbs and when teaching learners a strategy for reading, e.g. asking questions. These concepts are then assessed by teachers during summative and/or formative assessments. The analysis of the data follows in the next section.

4.7 Data analysis

I used Tesch's eight steps in the coding process (Creswell & Creswell, 2018, p. 357), to analyse the semi-structured interviews, focus-group interview and questionnaires. The steps in Tesch's coding process were executed as follows:

1. All the transcripts were carefully read and some notes were made.
2. One interview was selected – the shortest and most interesting and the guiding question was: "What is this about?" (Creswell & Creswell, 2018, p. 357). I thought about the underlying meaning of the information and made notes in the margin.
3. Once this was done for several participants, a list of the themes and sub-themes was made. Similar themes were grouped together. A document was created with columns, which were labelled as main, unique and surplus themes.

4. I took the list and returned to the data. The themes and sub-themes were abbreviated and codes were written next to the applicable section of the text. This initial organising method was tried to check if new themes and sub-themes emerged.
5. The most descriptive words were used for the themes and sub-themes. I found a way to reduce the number of themes by grouping themes and sub-themes that connected to each other. I drew possible connections between the themes to show interrelationships.
6. I finalised my decision on the abbreviation for each theme and alphabetised the codes.
7. I gathered the data belonging to each category in one document and did an introductory analysis (Creswell & Creswell, 2018).

All qualitative data were analysed manually (Saldaña, 2011). According to Merriam (2009), the unit of data within which any meaningful word or phrase correlates with another unit of data is honed and fine-tuned as the analysis proceeds.

Data analysis involves how we move from the data to understanding, clarifying, and understanding the phenomena of the question (Cohen et al., 2018). Qualitative data includes noting patterns, themes, participants' explanations of the situation, understanding, organising, describing and explaining data (Cohen et al., 2018). The trustworthiness of the data is also an important phenomenon of data collection.

4.7.1 Trustworthiness

Data validity is an especially important key in qualitative research. Should a piece of research be invalid, then it is useless (Cohen, Mannion, & Morrison, 2018). Validity itself takes many forms. It also has several principles, namely that data is descriptive, the natural setting is the primary source of data, "the researcher – rather than the research tool – is the key instrument for research", "data is analysed inductively," (Cohen et al., 2018) and so forth. For example, "in qualitative data validity might be addressed through the honesty, depth, authenticity, richness, trustworthiness, dependability, credibility and scope of the data achieved, the participants approached, the extent of triangulation and the disinterestedness or objectivity of the researcher" (Winter, 2000; Flick, 2009, cited in Cohen et al., 2018, p. 246). To ensure internal validity, triangulation of data is utilised by collected data from multiple sources, namely individual interviews, a focus-group interview and questionnaires (Creswell & Creswell, 2018). Lincoln and Guba (1985) and Ary et al. (2002) suggest that in pursuing trustworthiness, researchers seek "key criteria of validity in qualitative research" and that these criteria are "i) credibility: the truth value;

ii) transferability: generalizability; iii) dependability: consistency; iv) confirmability: neutrality” (cited in Cohen et al., 2018, p. 248).

4.7.2 Credibility

Credibility is linked to the research questions. It is enhanced through clear-cut, purposive sampling and specified data collection methods (Lincoln & Guba, 1985, cited in Maree, 2019, p. 144). To ensure credibility, well-established research approaches are adopted. A research design that suits the research question is applied and a theoretical foundation that is in line with the research question and methodology is utilised (Maree, 2019). Credibility is also augmented by friendliness between the participants and the researcher and “well-defined, purposive sampling, detailed data collection methods and triangulation” (Lincoln & Guba, 1985 cited in Maree, 2019, p. 144).

4.7.3 Transferability

Generalisability or transferability is the goal of research results being valid to as large a population as possible (Babbie & Roberts, 2018, p. 63). The information that is gathered can be made applicable to other situations (Cohen et al., 2018). Transferability does not, however incorporate generalised statements, but it encourages academic or research readers to make links between sections of a study and their own experiences or research (Maree, 2019).

4.7.4 Dependability

The concept of dependability is the preferred term used in qualitative research instead of reliability (Maree, 2019). Dependability is exhibited through the research design and its execution and the effective “detail of data gathering” (Maree, 2019). Maintaining a journal during the research process specifically for data collection and analysis helps others keep track of your reasoning (Maree, 2019).

4.7.5 Confirmability

Lincoln and Guba (1985) explain confirmability as the degree of neutrality or the degree to which the results of a study are influenced by the participants and not by researcher prejudice, incentive or interest (Babbie & Roberts, 2018; Leavy, 2014; Maree, 2019). Confirmability is also described as the “extent to which the findings of a study are shaped by the participants and not by researcher bias, motivation or interest” (Maree, 2019, p. 145).

4.8 Ethical considerations

Ethical clearance was obtained from North-West University's Faculty of Education Research Ethics Committee (EduREC) (Annexure A) and permission was requested from the Western Cape Education Department and the principals of the schools. In addition, goodwill permission from the relevant school governing bodies was also sought. Written informed consent was obtained from participants.

Prior to sampling, the researcher first gained consent from the WCED to conduct the research in schools (see Annexure B and C). Second, the researcher collaborated with gatekeepers before doing the research, as their collaboration was required to access teachers (Creswell & Creswell, 2018).

Confidentiality and privacy were ensured from my (the researcher's) perspective throughout the process of the individual and focus-group interviews. However, confidentiality and anonymity were challenging with the focus-group because I have limited control over what participants may subsequently discuss outside of the group (Sim & Waterfield, 2019). Pseudonyms for the teachers who have provided informed consent and the schools were used. Participants were allowed to withdraw from the study at any point. All data was handled confidentially. Data will be stored securely for a period of five years after the completion of the study. Throughout the process, the power relationship between the teacher and me was addressed by means of using neutral individuals from the school structure. The results of the research will be available to the research participants on request when the study has been completed.

4.9 Conclusion

This chapter covered the research paradigm and the research design relevant to this study. The sample population was Foundation Phase teachers within the Western Cape Education Department. The sampling was purposive: this method was specifically selected, as it formed part of the research criteria. Data collection was done via semi-structured online interviews, questionnaires and a focus-group interview. Tesch's eight steps in the coding process (Creswell & Creswell, 2018), were used to analyse the semi-structured interviews, questionnaires and focus-group interview. All ethical considerations were adhered to in order to protect the interviewees and the documents that were generated. The following chapter discusses the results.

CHAPTER 5: RESULTS

5.1 Introduction As discussed in previous chapters, the goal of this dissertation is to investigate how multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase can help to improve reading comprehension skills. In this chapter, the results of the data analysis are discussed. The individual interviews, the focus-group interview and the questionnaires (cf. Table 4) were the main data sources that were used for the analysis, as they were directly related to the purpose of this study. The following research questions guided this chapter: (1) What are the reading comprehension strategies relevant to the Foundation Phase? and (2) How can teachers in the Foundation Phase implement multimodal modelling of reading comprehension strategies and foster self-directed learning?

5.2 Data analysis and interpretation

Each theme and sub-theme that was generated from the data analysis is discussed in the following section. From the data collected, analysed and interpreted four main themes with sub-themes were generated. See Figure 5.1. for the themes and sub-themes of the study.

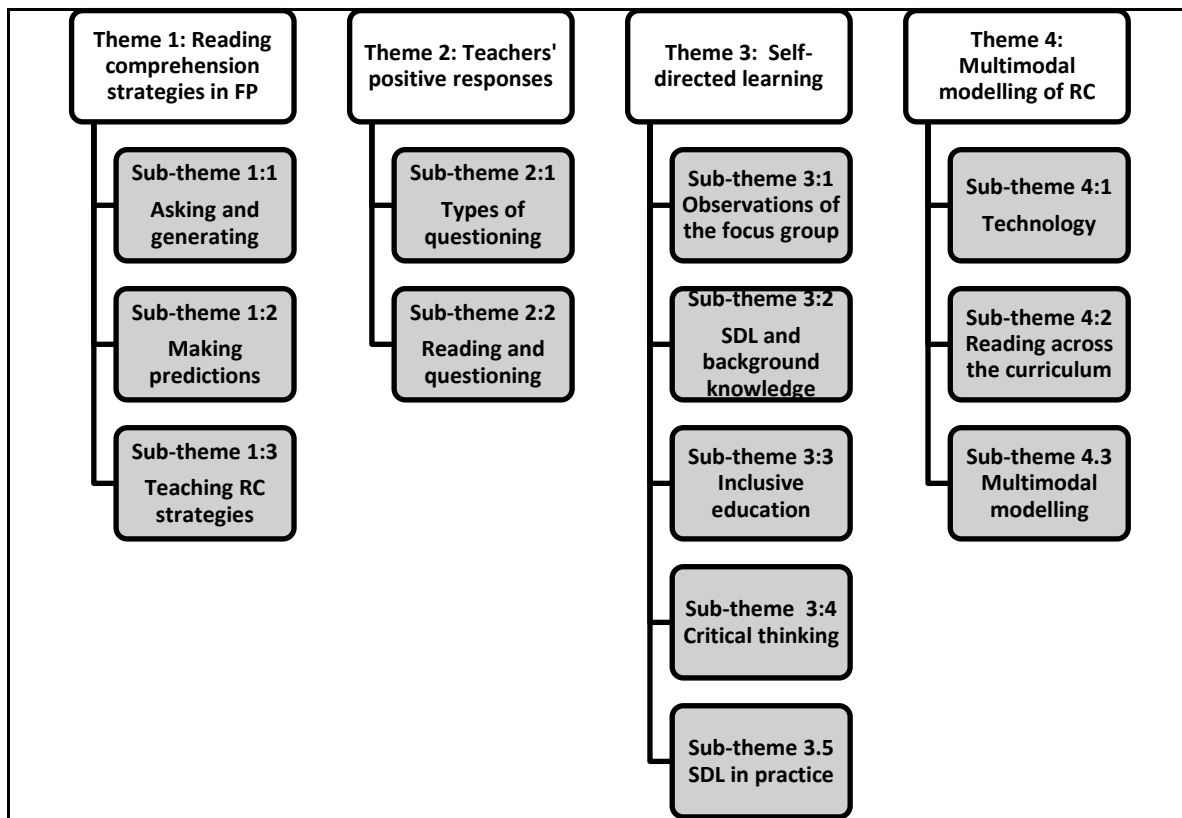


Figure 5.1: Overview of the themes and sub-themes of the study

5.3 Discussion of the themes and sub-themes

The documents used throughout this study were manually analysed as described in Chapter 4 and the findings are displayed and discussed according to the themes (see Figure 5.1).

5.3.1 Theme 1: Reading comprehension strategies relevant to the Foundation Phase

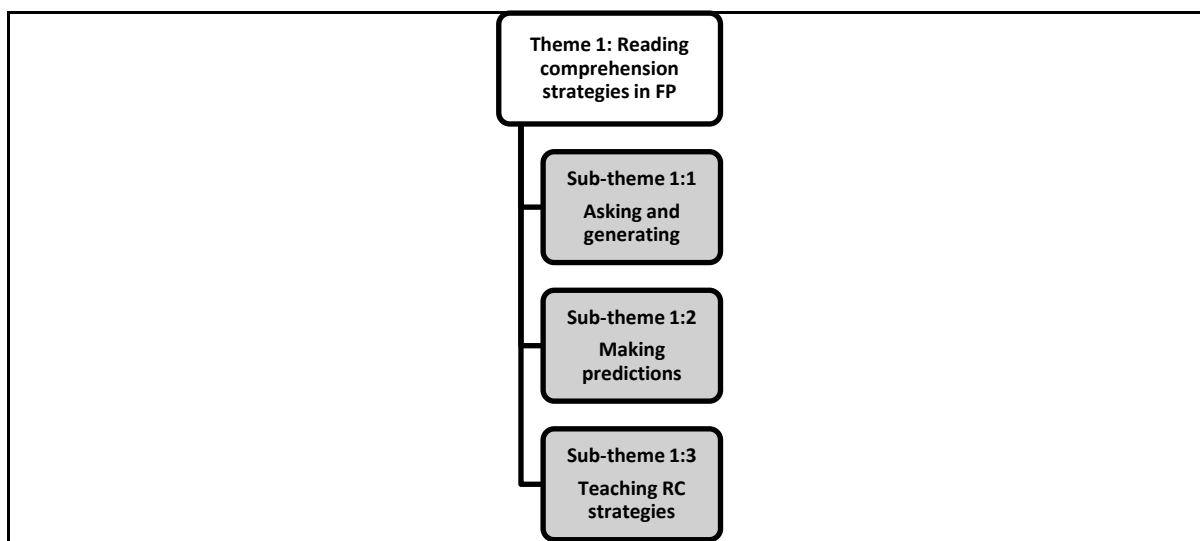


Figure 5.2: Theme 1 and the three sub-themes generated from the data

5.3.1.1 Theme 1: Reading comprehension strategies in the Foundation Phase

These strategies can be beneficial for the Foundation Phase educator to support learners with reading comprehension. Hence, the participants indicated a variety of strategies that they utilised in the Foundation Phase classroom to support reading comprehension. Asking and generating is the first strategy utilized for RC, participants highlighted the following strategies, namely asking and generating questions, and making predictions.

5.3.1.2 Sub-theme: Asking and generating questions

In terms of asking questions, Teacher 3 (T3; lines 122–123) stated:

“[...] ek doen ongelooflike baie vraagstellings. [...] ek vra verskriklike baie vrae aan die begin van die storie.” [I ask an unusual number of questions. I ask several questions at the beginning of the story].

From the quotation it is evident that the teacher asks many questions, especially at the beginning of the story. Questions before, during and after reading are an important aspect for learners to learn how to question other texts that they may come across (Hanekom et al., 2010). Questions can take various forms. The questions asked may guide learners towards a specific answer for learners to give their opinion or to guide them towards clues about a story (Pellicer-Sánchez et al., 2020; Wigfield et al., 2016).

T5 said that (lines 107-110):

“Hulle moet nuuskierig wees, hulle moet lus het om te leer. Hulle moet wil weet wat gebeur volgende in die storie. En dan wil ek vir hulle vra, wat gaan jy doen as jy in daai karakter se posisie is? So ek dink nuuskierigheid is my geheime wapen. [They must be inquisitive; they must want to learn. They will want to know what is going to happen next in the story. And then I ask them, what would you do if you were in that character’s position? So, I think inquisitiveness is my secret weapon.]

T5 was asked how she gets learners excited to read with understanding and to questions what they are reading. It is evident that T5 uses the learner’s inquisitive nature to her advantage by getting them excited about the story and then asking questions. T5 is focussing on developing the learner’s ability to question what is being read and by drawing them into the story through their inquisitive nature. This includes getting them to focus on the story and the questions The teacher demonstrates this by asking questions about the character in the story.

5.3.1.3 Sub-theme: Making predictions

From the data analysis, making predications was also found as being an important element. Woolley (2011, p. 108) states that “[p]redictive or forward inferences have a very strategic role to play in reading comprehension”. For learners to predict what could happen in a story, questions need to be asked. According to T3 (lines 125–127):

“[...] ek kan ‘n voorspelling maak, al is dit verkeerd, my antwoord, al is dit nie die voorspelling wat in die storie gebeur nie, dit is nog steeds reg” [I (the learner) can make a prediction, even if it's wrong, my answer, even if it's not the prediction that happens in the story, it's still correct.].

“[...] ek lees en op die klimaks van die storie sal ek stop. En dan moet hulle gaan dink by die huis; Wat gaan nou volgende gebeur? Wat dink ek gaan gebeur? Wat gaan met die maatjie of daai maatjie gebeur? [...] En dit is net eintlik maar om vir hulle opgewonde en nuuskierig te maak oor die storie.” [I (teacher) read and at the climax of the story, I will stop. And then they must go home and think; What’s going to happen? What do I think is going to happen next? What is going to happen to this friend or that friend? It’s about making them excited and curious about the story.]

It is clear from these quotations that giving learners these types of opportunities to make predictions, even if it is incorrect, they are still encouraged to think about different possibilities for

the story. This opportunity that the teacher created for learners not to feel “threatened” when making predictions is important, as the teacher needs to accept all the answers that learners give. Predictions keep learners engaged and get them excited and they can use their imagination while listening to the story (Woolley, 2011). The fact that learners’ predictions are not deemed incorrect builds their self-confidence and it encourages them to participate and share their thoughts. Making predictions helps learners to develop their comprehension (Lynch, 2021).

Clarification is also provided to learners through questioning and discussion. New vocabulary that learners are exposed to can be explained or meaning can be derived from how it is used in text or by using the word in a different sentence or using a dictionary (Dermody & Speaker, 1999). Clarifying instructions or new vocabulary plays an important role in learners becoming self-directed in their learning.

5.3.1.4 Sub-theme: Teaching reading comprehension strategies

Teaching reading comprehension strategies in the Foundation Phase is important, as it is the starting process of learners learning to ask questions while reading (see Figure 5.2).

According to P1 (Participant 1 of focus-group; lines 392–398):

“[...] I think teachers do need to teach the specific strategies and [...] become acquainted to asking the kinds of questions that can relate to that specific kind of strategies so that we actually training our children to think that way as well.”

It is evident that teaching a specific reading comprehension strategy at a time helps learners to concentrate on the specific strategy. Learners can also be guided to align their thinking using a specific strategy and use it for various activities. According to Hilden and Jones (2013), during interactive read-alouds, the “teacher is able to model” and foster the before, during and after reading comprehension behaviours that “good readers” utilise, as was also shown by P1 above.

P2 (lines 396–398) agreed with P1 regarding the teaching of comprehension strategies:

“[...] we need to start in grade 1 with comprehension strategies and I think we are still doing it with the shared reading methodology [...] where we predict and summarise and ask the questions, this 5W/H questions.”

It is evident that comprehension strategies are covered during shared reading. Using the 5W/H method helps teachers and learners in terms of the types of questions asked and the information that is gathered.

P2 (lines 409–423) also said:

“[...] what we teach in grade 1 will reflect how well we taught it in grade 3. [...] it is very important [...] to teach comprehension strategies in the foundation phase because if it’s done well in the foundation phase it will only get better in the intermediate phase.”

P2 affirmed that what learners are taught in Grade 1 will reflect in Grade 3 in how well Grade 3 learners do at comprehension and using the strategies. If there is a good foundation of teaching comprehension strategies in the Foundation Phase, then learners will continue to develop this skill in the intermediate phase.

P1 then followed up this remark with the following (lines 428–429):

“[...] the comprehension strategies, if they taught correctly, that to me is the building blocks of study skills. [...] we’re teaching children how to read and how to learn, how to read and by the time they reach grade 4, [...] they need to be able to use those skills to be able to study.”

The evidence shows that the building blocks of study skills are based on the teaching of the comprehension strategies. Learners are being taught how to read in the Foundation Phase, but they need to be able to use the skills learnt and develop them into the study skills they require.

The quotations under this sub-theme have shown that most of the reading comprehension strategies flow from asking questions or questioning. Teaching the reading comprehension strategies correctly and early in the Foundation Phase will have a ripple effect into the higher grades. If it is taught well, the learners can use and implement it easily. As P1 remarked about study skills, the reading comprehension strategies will support learners in developing these important skills.

5.3.2 Theme 2: Teachers' expectations and positive response to intervention series

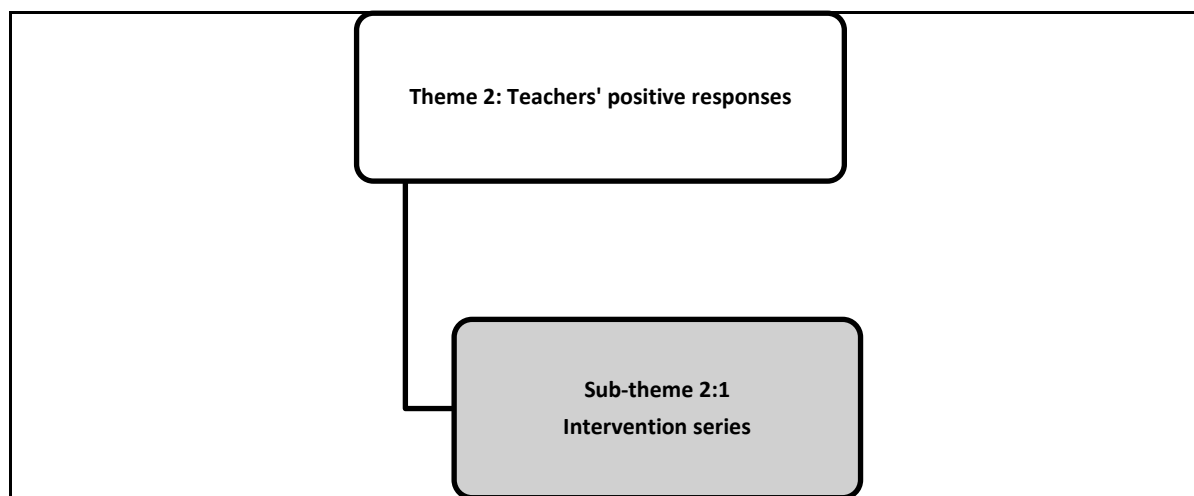


Figure 5.3: Theme 2 and the one sub-theme generated from the data

Theme 2 related to the teachers' positive response regarding their expectations and their experience of the actual intervention series.

Teachers initially spoke about their expectations for the series, as many seemed unsure of the intervention series (see 1.5.7) itself. However, their curiosity was piqued, as they realised that sessions would not only be beneficial to them, but also for their learners. The aim of the information shared during the presentation of the intervention series was to equip teachers in teaching reading comprehension.

T6's response regarding their expectations and positive response is as follows (lines 66–70):

“[...] the expectation was basically that it would be in questionnaire form, each session. But what was interesting, was the fact that you gave information as well as asked questions. [...] But it was more than that, it was more informative.”

From the teacher's response it is evident that she did not expect the intervention series to be information-rich and that questions would be asked.

According to T10 (lines 26–28):

“Uhm, in die begin het ek gedink daar word dalk vrae gevra. Ons beantwoord die vrae, uhm. Maar dit was meer verrykend as dit in die ou einde gewees. Want op die ou einde kon ek ook iets daarvan iets uit vat en dit het my manier van onderrig verbeter.” [Uhm, in

the beginning I thought questions would be asked. We answer the questions. But it was more enriching in the end. Because at the end I could also take away something, my take-away was that it improved my way of teaching.]

T6 and T10 both seemed surprised at the format in which the intervention series took place. The unexpectedness thereof led them to finding the series very informative. There were other teachers who were also initially sceptical about the series, but they too took away valuable information from it.

T3 said the following (lines 67–68):

“[...] ek was baie nuuskierig, want obviously, dis altyd lekker om nuwe maniere te leer, of te hoor hoe om kinders wat sukkel, te help. So ek was baie nuuskierig toe ek eers gehoor het van die sessies. [I was very curious, because, obviously, it is always fun to learn new ways, or to hear how to help struggling children. So, I was very curious when I first heard of the sessions.]

Their curiosity led them to want to participate in the intervention, as they are keen on learning new methods to help and support the learners in their class. The sheer excitement in their voice during the interview, to me, meant that their take-away from the sessions was far greater than I initially expected.

T5's comments were as follows (lines 41–44):

“Ek sal sê ek was baie opgewonde, want dit was 'n geleentheid vir my om meer te leer. Ek was nie juis seker of wat ons gaan behandel nie, maar ek het geweet dit het iets behandel om vir jouself te leer. So ek was opgewonde om meer te leer. En oor te dra wat ek geleer het. Om myself te verbeter. Ek was regtig baie opgewonde.” [I was very excited for the opportunity to learn more. I was not sure what it would entail, but I knew that it would involve teaching yourself to learn. I was excited to learn more. And to share what I have learnt. To improve myself. I was really excited.]

T5 was very keen to learn. Even though they were unsure of all the content being presented (see Figure 5.3), they knew that parts of it dealt with reading. Their excitement was palpable as they realised that the series would help them improve their teaching and teaching methodologies.

5.3.2.1 Intervention series

After the presentation of the intervention series (see Figure 5.3), T10 stated the following (lines 364–372):

“Bespreking van die prente. Dit is basies wat ons in elk geval doen wanneer ons iets bekendstel. Maar wat vir my uitgestaan het is die 4W/2H om die kinders, dit help ook die kinders om stories beter en sinne beter te kan bou en te verstaan. Uhm, en dit help ook met die ontwikkeling van begrip. Uhm, wie is in die storie, kom ek vat nou maar die Drie Varkies, die Wolf en Mamma. Uhm, waar het hulle gegaan, hoekom het hulle gegaan, wie het wat gebou? So dit help om die storie net beter te struktureer. So as mens nou deur die vrae werk, dan amper half sit dit die storie vir die kinders agtermekaar. Die is nou wat basies op so ‘n manier leer. Ander kinders help dit meer om mos die prentjies uit te pak. Wat maak jy as dit julle leerders is? Dit hang ook af op watse tipe leerder dit is.”
[Discussing the pictures. It is basically what we do when we introduce something. But what stood out for me was the 4W/2H to help the children understand the stories and to build better sentences. Uhm, and it helps with the development of comprehension. Uhm, who are in the story, let’s look at The Three Little Pigs, the wolf and mom. Uhm, where did they go, why did they go, who built which building. It helps with constructing the story. So, as you work through the questions, it puts the story in sequence for the learners. This is basically how they learn. Other children need to unpack the pictures. What do you do if it is your learners? It depends on the type of learner.]

Initially, it seemed that this teacher was dismissing the series from the way they started their answer, but they surprised me by their response about what stood out for them, namely the 4W/2H for Afrikaans questioning, namely Wie, Waar, Wanneer, Wat, Hoe and Hoekom; in English it is referred to as the 5W/H method. According to T10, using this questioning method not only helped learners with comprehension and understanding the story, but also with sentence construction.

T6 had the following response to the intervention series (lines 536–538):

“Definitely the use of resources and I think [...] the strategy and how you implement and how you, you know the different approaches of questioning learners of what was read. Uhm, I think that is what stood out for me.”

T4’s take-away from the intervention series was as follows (line 205):

“Ek sal sê die lees.” [I will say the reading.]

Different ways of modelling reading were demonstrated. T4, a novice teacher, stated that the reading stood out for them. This also stood out for T6. The positive responses to the intervention series show that teachers are constantly on the lookout for novel ways to support and help their learners to improve their reading comprehension.

5.3.3 Theme 3: Self-directed reading comprehension in the Foundation Phase

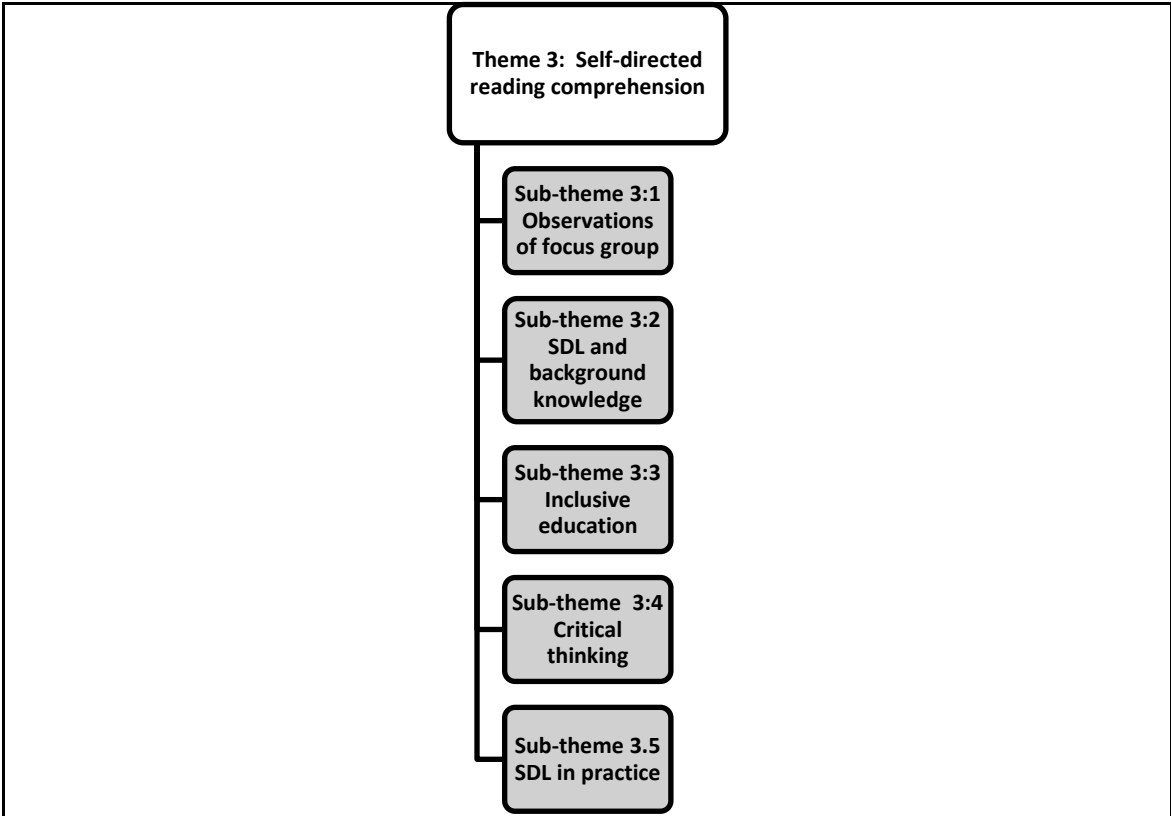


Figure 5.4: Theme 3 and the five sub-themes generated from the data

Following Pearson and Gallagher’s (1983) initial GRR three-stage model (the teacher model, guided practice, and learner application and responsibility), an intervention series was presented to teachers as part of the research (see 1.5.7).

There appears to be a lack of knowledge and understanding of self-directed reading comprehension and there seems to be a barrier to learners being exposed to it. The research found that professional development in this area appears to be lacking. When teachers were asked the question about SDL, they were not sure what it entailed.

Dramatisation was used as an example to explain a portion of SDL to the teachers, as dramatisation or role-play can encourage self-directed reading comprehension. Learners need to

work together in a group and create their own “script” for their role-play. To write the “script”, they need to summarise the story.

5.3.3.1 Sub-theme: Observations of the focus group

As the members of the focus group were curriculum advisors for Foundation Phase and therefore experts in the field, their observations of teachers in the field and the teaching and methodology used by teachers allowed them the unique opportunity to share these observations and reflect on their own teaching practices. P1 explained that teachers were given resources specifically for reading comprehension and training was also done in that specific area. They are also frequently telling teachers to plan the questions that they would like to ask their learners during the lesson. In the semi-structured focus group interview, P1 (lines 94–105) stated the following:

“[...] I would say that my personal experience is that is something that’s lacking is that they don’t specifically teach comprehension and comprehension strategies and it’s not as if we haven’t kind of done specific training. [...] the comprehension reading panels which we’ve given our teachers, uhm, we’ve done comprehensive training on the comprehension strategies. [...] we say to teachers that you must plan your questioning, uhm, in your planning so write down your questions, uhm, we try to encourage them to even focus on a specific comprehension strategy, say during a particular week or a particular day [...].”

P1 has observed, in their personal capacity, that teachers do not teach comprehension and comprehension strategies, as they, curriculum advisors, have done specific training on comprehension. Teachers have been provided with reading panels that guide them when teaching comprehension strategies. Teachers have been advised to focus on a strategy for a week or day, for example making predictions or asking “why” questions (see Figure 5.2) to encourage learners to use the strategy. Breaking the comprehension strategies down into smaller pieces gives the teacher and the learners the opportunity to practise and use them in their daily work activities.

P2’s (lines 112–118) observation was as follows:

“[...] I don’t think the educators knew about know about [...] the comprehension strategies [...]. There’s like no for instance, what do you think what would have happened, the prediction or give your opinion of that and we are encouraging them to- to- to- to make use of that kind of questions to the learners the- the opportunity to give their, um, um, opinion and to say why they say that is what is going to happen.”

Although teachers are encouraged and advised by the curriculum advisor, it seems as if though some of them are not following through with the advice. P2 commented that they think some teachers do not know about the comprehension strategies. Teachers are not asking questions to guide learners to make predictions or asking for their opinions. Teachers seem to miss the opportunity to ask learners the “why” question when they have given an answer.

In terms of reading and the pandemic (Covid-19), P1 said the following (lines 292–305):

“Um I would say I- I won't say the pandemic is solely to blame for where we are with our learners in- um, I think it- the pandemic *het net daartoe nog verder bygedra* [just contributed to it].

P2 (lines 303–305) added to P1's response:

“[...] I would say you know the pandemic we had problems with reading beforehand and particularly reading with meaning, um, comprehension beforehand. I think the pandemic is has just made it even made it even worse. [...]

According to both P1 and P2, learners had difficulty with reading and comprehension prior to the Covid-19 pandemic and the pandemic has exacerbated the problem.

T10 was asked how the pandemic had affected their learners (lines 104–114):

“Ek dink dit het baie groot skade gedoen want die spesifieke leerders wat ek nou het, is 2020 se graad R leerders. So dit beteken hulle het, ek sal sê, omtrent 6 maande wat hulle nie onderrig ontvang het nie en met ons omstandighede van ons huisgesinne en so aan, ons het wel goed aangestuur met WhatsApp maar almal het nie fone nie. Almal het nie data nie. Almal het self nie, hulle is nie op daai vlak om dit wat ons vir hulle vra aan hulle kinders aan te leer deur dit te doen nie. En hulle maak eenvoudig net nie tyd nie. Uhm, en dit het ook maar 'n groot impak gehad. Dié groep, almal sê regtig deur die bank, die groep wat ons nou het, ons swakste kinders wat ons nog ooit gehad het. En ek dink omdat die fondasie nie lekker vasgelê is nie, is ons heeltyd net besig met catch-up, catch-up, catch-up. So, ja die kinders wat ek nou het moet graad 2 wees maar ek nou skat, my sterk kinders is graad een kwartaal vier vlak. En my swak kinders, van my swak kinders in nog op graad R vlak. [I think it was detrimental to these specific learners in my class as they were in Grade R in 2020. That means that they did not receive any teaching for approximately six months and also considering the home circumstances of our learners, we did send work home via WhatsApp but not everyone has cell phones. Not everyone

has data. Not everyone is on the level where they are able to teach their children what we have sent. And they simply don't make the time. Uhm, and that also had a huge impact. This group, everyone is saying, this group that we have now, are the weakest group of learners that we have ever had. And I think because the foundation was not established, we are constantly trying to play catch-up, catch-up and catch-up. So, the learners that I have should have been on a Grade 2 level and I am gauging, my strong learners are on grade one term four level. And my poorer learners, they are still on a Grade R level.]

From the teacher's perspective, T10 felt that the pandemic has caused major problems, specifically for learners in the Foundation Phase. The strong foundations that were meant to be laid in Grade R have been lost during this period. With an already overloaded curriculum, there is not much additional time available for teachers to do catch-up with the learners. Several learners, according to T10, are six or more months behind in terms of their reading abilities.

5.3.3.2 Sub-theme: Self-directed learning and background knowledge

When T4 was asked how they support their learners to become independent and self-directed in their learning, they responded as follows (lines 114–121):

“I have a rule in my classroom. You need to complete your homework. If your parents can't help, you need to go find someone. [...] in the beginning it was very poor. [...] as time goes on, they began to become interesting for them. It's like they want to do their work.”

Developing learners' self-confidence and sense of achievement is important for T4. They do this by encouraging learners to ask someone to assist them with their homework. Since the learners are being assisted, they are encouraged, which makes them want to do better.

According to Woolley (2011, p.88), “[a]ppropriate questions can activate students' background knowledge by generating images, illustrations, analogies, metaphors and summary sentences.” T6's reply to taking learners' background and previous knowledge into account during preparation of lessons was as follows (lines 271–282):

“[...] we try and do or that's what they recommend us to do is to use the Life Skills themes. So, sometimes the learners don't have any background knowledge about the theme that we are doing. Which makes it a bit difficult cos then learners take longer to comprehend what you are actually trying to teach them or what you are trying to get over to them, which makes it difficult. If I can take an example, when we have the theme 'at the beach', lots

and lots of our learners have never been to the beach. So, it makes it very difficult cos you need to first build up; what is the beach, what do we see at the beach, for the learner to actually comprehend. If you say ‘the waves’, they’ve never seen waves in real life. But as soon as we do a theme like: ‘Op die plaas’ [On the farm], then they are like they know everything. Then you can go on knowledge that the learner already has. Because they sometimes have more knowledge than what I have. It depends on the theme. We do when we can, but sometimes we have to build the knowledge, like show them videoclips on YouTube. Just to give them an idea of what it is about.”

Building learners’ background knowledge, specifically in the Foundation Phase is important to T6, as they are the first one to introduce this new information to the learners.

Creating opportunities to build learners’ previous knowledge T9 (lines 347–355) confirmed what T6 said:

“So, if I’m gonna do a story on sheep, we’re gonna watch sheep videos. We’re gonna talk about sheep, we’re gonna all kinds of things about sheep before we actually get to the story on the sheep for example. If you’ve never seen a sheep what’s the point, you’ve never been on a farm. [...] or like a step-by-step process,” to foster SDL.

Both T6 and T9 gather information to build the learners’ background knowledge in the Foundation Phase. T9 searches for resources on various platforms to help learners develop their background knowledge. They do this so that learners will have a point of reference to work from should they encounter a similar topic later in their school career.

P1 (focus group) explained how a teacher used pictures on a washing line to clarify in a practical way (see 5.3) what learners need to do after the completion of an activity. This practical display gives the teacher the opportunity to continue working with other learners without constantly being interrupted. This type of display encourages learners to become familiar with the routine that the teacher is trying to teach them. By using this structure, the teacher can meet learners’ needs in terms of knowing what to do and supporting (Thomas et al., 1988) them with visual cues. It is hoped that this becomes innate and that SDL may be fostered in this manner.

5.3.3.3 Sub-theme: Inclusive education

Inclusive education is practised by teachers in the Foundation Phase. Teachers differentiate their teaching methods and they use a multilevel approach during teaching as learners are divided into smaller groups, as stated in White Paper 6 (DBE, 2001). Learners who experience barriers to

learning, as mentioned in White Paper 6, are accommodated by being incorporated into different ability groups (DBE, 2001). Learners' needs are met by teachers differentiating their teaching styles and the differentiation of activities given to learners. Engelbrecht and Swanepoel (2018) state that teachers need to produce lessons for different levels and at different levels so that all learners can access the curriculum at their unique ability level.

T4's class is divided into groups. One group, however (lines 96–99):

“[...] are on the level of grade one and grade R. So, for them I will give other work. Comprehension, but not what I give the other learners in my class. [...] the stronger learners will get different ones and the group in the middle will get others. The work will circulate [...].”

It is evident that T4 uses or creates activities for the different learning levels and multilevel teaching in their class, which includes all levels of learning and their abilities. Differentiating their teaching and the activities means that they are accommodating all the learners in her class.

T5 stated the following (lines 132–145):

“[...] 'n Mens probeer om alle sintuie 'n les te gebruik. As jy nou 'n byvoorbeeld toe ons nou insekte gedoen het in lewensvaardigheid, daai kan jy nou daai kan jy gebruik in Huistaal ook om 'n storiëtjie te lees oor insekte. [...] fototjies te het van insekte. [...] 'n skoenlapper, dat hulle kan voel om fisies uit te gaan en kyk hoe lyk en om te gaan soek vir insekte. Al daai dinge om vir hulle geïntereseerd te hou. [...] Met stories te werk, hulle leer soveel daaruit, as wat jy nou net vir hulle gaan sê.” [I try to use all their senses in a lesson. If you take for example, when we did insects in Life Skills, you can read a story about insects in Home Language. Have photos of insects. To have a butterfly that they can touch and to go outside to find and look for different insects. We do that to keep them (learners) interested. They learn so much through stories, rather than telling them about it.]

Inclusive education includes using several of the learners' senses at the same time (DBE, 2001). According to Kamei-Hannan and Chang (2022), reading comprehension strategies are needed during multisensory storytelling to improve learners' reading comprehension and to support their language development. Maintaining the learner's interest by tapping into multiple senses can improve their retention of what was learnt and improve their memory.

T7 (lines 126–139) also referred to the fact that their learners still need sensory stimulation:

“[...] some of my slower learners, just to encourage them once they’ve done with a piece then I give them a puzzle to build- [...] I started now with clay, and you won’t believe how they almost fight with each other over the clay! Sensory thing still. Grade twos- are totally sensory. [...] Sensory skills you can’t write up in a book.”

In order to address the diverse needs of learners/special need learners, we accommodate a variety of activities in the classroom. The additional activities are not necessarily a reward, but understanding that differentiation is needed, for example puzzles and clay are used (Engelbrecht & Swanepoel, 2018).

T8 felt that it was important to accommodate different learning styles in their lessons (lines 265–270):

“[...] I had to find ways of making it really like visual and, um, auditory. So that, you know, they’d really want to know, want to learn about them and it’s fascinating when we did the section on butterflies: Oh, they were absolutely blown away about that. They made, um, beautiful life cycles on a paper plate so it’s using different [...], different activities, and very practical activities to engage those, you know, [...] the ones that, um, are visual learners and the ones that are auditory learners.”

T8 firmly believes that including the learners’ senses and artistic abilities means that learners can experiment and use the one that best suits them. “The goal of simultaneous multisensory instruction is to foster automatic integration of auditory, visual, and kinaesthetic-motor modalities, regardless of which modality carries the initial stimulus (e.g., reading begins from the visual stimulus of seeing words; spelling begins from the auditory stimulus of internally hearing words)” (Waterford.org, 2019). Incorporating multiple senses means that learners learn best when information is taught or presented in different modalities.

P1 stated the following (lines 666–670):

“[...] I think in terms of- of reading [...] is to bring back play into it and to make teachers aware that when you are teaching reading it’s not just sitting down and reading words, flashing words or, um, reading sentences but you can actually enhance a child’s learning, [...] getting as many senses involved as possible.”

The focus group agreed that teachers should bring play-based learning back into learning and should use learners’ senses during reading, for example. According to Danniels and Pyle (2018), play-based learning can be child-directed or teacher-guided. By incorporating play-based learning

in reading, for example, learners recall of the text and use of the vocabulary can increase (Danniels & Pyle, 2018). Allee-Herndon, Killingsworth, Roberts, Hu, Clark and Stewart (2022, p. 120) posit that “purposeful or guided play should support the development of the whole child and allows for active manipulation of learning materials to extend children’s understandings”. Scholars have noted that play is intrinsically language-rich and crucially significant to foster, amid supplementary skills, “language and literacy development” (Allee-Herndon et al., 2022, p. 121).

T8 also incorporates play-based learning into their lessons (lines 385–390):

“I think through games, lots of games, lots of fun activities like um we introduced um like sometimes you play scrabble in class with them, or Hangman and they don’t realise that they are learning, but they are learning through play. We also did 30 Seconds the other day in class, and they absolutely loved it, but they had to be able to read from the card in order to you know explain, um, um, and- and- and give the clues to their teams, so they absolutely loved that. So, I think it is a lot through- through fun and games, ‘cause lots of learning takes place through fun and games.”

It is evident that T8 firmly believes that incorporating play-based learning into their lessons helps their learners learn without realising it. The role of playing augments scholarly growth (Masemola Tshoswane, Maile, Mashaba, & Ntsana, 2022). The learners’ reading also improves, as they need to read clues to their peers.

5.3.3.4 Sub-theme: Critical thinking

Critical thinking (see Figure 5.4) can potentially be developed by asking questions (Nappi, 2017). T3’s response to critical thinking was as follows (lines 192–193):

“So ek het al agtergekom deur die heelyd hoekom te vra, help dit baie vir die kinders om krities te begin dink [...] (line 188-189). [...] my antwoord moet ‘n bietjie meer indiepte wees. Ek moet bietjie meer dink,”. [I have realised that the more I ask the ‘why’ question, it helps learners to begin thinking critically. My answer needs to have more depth. I need to think more.]

She believes that asking more “why” questions develops learners’ critical thinking. “Deur kritiese vrae te vra. Ek laat vir hulle logies dink oor die vrae. [...] om kritiese vrae te vra natuurlik en laat vir hulle logies te laat dink” (T5; lines 120–121). [By asking critical questions. It lets them think logically about the questions. [...] to ask critical questions of course and it lets them think logically].

When asked about critical thinking, T2 responded with the following (lines 345–347):

“To think critically, you show them to grow their critical thoughts: What do you think? Where it can or could be? You stimulate them by asking questions on what, where, why, how, so that they know the bigger story [...]. T3 said, “Ek het agtergekom deur vir ‘n kind heelyd hoekom te vra, help dit baie vir die kinders om krities te dink en dan ook vir hulle bietjie te lei” [I realised that constantly asking ‘why’ can lead learners to the correct answer and requires them to give more thought to their answers].

T6’s response to the question on critical thinking was as follows (line 341–346):

“[...] die tipe vrae wat jy vra. Of vrae soos, “wat dink jy sou gebeur het as? Ek dink alles gaan oor die vraagstelling. Dit gaan oor die manier hoe jy jou vrae stel [...]” [The types of questions you ask. Or questions such as, ‘what do you think would happen if? I think everything is about the questions. It is how you ask the question.]

T3, T2 and T6 agree that asking learners questions is crucial for developing their critical thinking. Constantly questioning learners encourages them to think more about the text they heard or read and it develops their metacognition. How questions are asked is also important, such as open-ended questions. The “why” question encourages learners to think in depth about the text and their answers should reflect this.

5.3.3.5 Sub-theme: Self-directed learning in practice

P2 used themselves as an example to explain how they incorporated SDL into their class. They are a multigrade teacher and they say the following:

“[...] I taught my grade 3s in grade 1 so that they can go on in grade 2 and in grade 3 on their own and help me with the, um, facilitation in the class with the grade 2s while I was at busy with the grade 1s. And I will put out their work and they especially will know the next day what they will do, what they are supposed to do and what to do when and how to help um, um, the grade 2s. So, they were directing their own, um, um, learning in the class with my facilitation.”

In multigrade classes the teachers have been training learners to be self-directed in their learning so that the teacher becomes the facilitator of learning.

When asked how they can support teachers’ SDL, P2 (lines 503–505) remarked as follows:

“the teacher herself needs to know what SDL is. And then she must implement it in her class [...] give direction and help teach the learners to take responsibility for their own learning.”

If teachers do not know what SDL is and what it encapsulates, they will find it difficult to incorporate it into their lessons and class.

P1 explained how on a curriculum visit they saw how a teacher implemented the development of SDL and independent learning. P1 said the following (lines 517–523):

“something I saw in one particular classroom they had like a wash line up and they had so the teacher would pin their activity up, so say they had a worksheet, um, and then next to the worksheets they peg a work card so and then next to that they would peg a reading book and so the child will know that the first step is I need to finish this worksheet, when I am finished with that I need to do the work card from my box and if I finish that as well then there is a book I need to read. So, you need to almost give the learners the structure or like a step-by-step process.”

This practical and visual cue can prevent learners from constantly disrupting other learners or disturbing the teacher while they are working with other learners. This visual routine, done daily, can guide learners to independence and SDL as they are working on various activities. As teachers plan, monitor and adjust their teaching, they can while reflecting and evaluating their lessons, adapt their teaching techniques to assist and support learners in their journey of SDL (Brandt, 2020).

T10 makes the following statement (lines 219–237):

“Wanneer, jy vat ‘n as ek nou Wiskunde vat, verduidelik ek die konsep, ek doen dit saam met hulle, ek doen so ‘n paar somme saam met hulle, dan sê ek nou nou probeer jy op jou eie, en selfs ook as ons nou begin met die skryf en die lees dan sê ek probeer gou gou vir my hierdie woordjies te lees. Veral in DBE werkboeke. [...] probeer hierdie klankelsie lees. Lees dit saam met jou maat. Reg kom ons lees dit saam. Kom ons kyk hoe werk dit of hoe het dit gewerk. [...] As dit kom by skryf van sinne, soos die tegniek wat ek gebruik is, uhm, ons vat deur klanke woorde, dan vat ons nou woorde, reg kom ons maak nou ‘n sin van ‘wolke’. [...] “Die wolke is wit.” Dan tel ons hoeveel woorde is dit. Dan hou ek die vingers op en dan is dis nou vier. So kom ons maak hom ‘n bietjie langer. “Die wolke” of “Die mooi wolke is wit. Dan hou ons, dan nou is dit vyf. Kom ons gaan trek

eers ons lyne. Hoeveel lyne moet ons trek? Vyf. Dan trek ons die lyne. “Die mooi wolke is wit.” Okay wat moet ons eerste skryf? “Die” reg skryf gou-gou op jou eie vir ‘die’. Soos die sigwoorde wat hulle meer gereeld sien laat ek vir hulle op hulle eie skryf.” [In Maths, I will explain the concept and do a few sums with them, then they need to work on their own and when we do story-writing and reading they need to attempt it on their own. Especially in the DBE workbook. Try to read the phonics. Read it with your peer. We all read together. Let’s see how it went or how it worked. When it comes to sentence writing, for example the technique that I use, we use phonic words, let’s write a sentence with, “clouds”. “The clouds are white.” Then we count how many words there are. I will hold up my fingers and show four. Let’s make the sentence a bit longer. “The clouds” or “The pretty clouds are white.” We’ll show five. Let’s draw our lines. How many lines should we draw? Five. Then we rule our lines. “The pretty clouds are white.” Okay, what do we write first? “The”, correct now you write the word “The” on your own. The sight words that they see often, I will let them write them on their own.]

The evidence shows that in Mathematics, the teacher will initially explain a concept to the learners and then encourage the learners to attempt it independently. The teacher can do the same in writing (sentence construction) and reading. During sentence construction, which is embedded in the social semiotic theory, the teacher would select a word from the phonics list and encourage the learners to help the teacher construct the initial sentence. The teacher can ask learners to extend the sentence by adding a describing word to it. Everything is done practically for learners to see what and how it is being done. The scaffolding done by the teacher during the lesson helps learners develop SDL. By doing this, the teacher is showing learners that they can attempt sentence construction on their own. Encouraging learners to attempt an activity after it has been explained by the teacher supports learning and learners on their road to independence, including in sentence writing.

T9 had the following to say (lines 427–429):

“[...] after a while I don’t spoon feed, I don’t answer if you can’t, if you coming to me and you say you have a problem or how help me help you solve the issue what do we do?”

Learners need to come up with a solution or explain exactly where they are stuck or have a problem. With the teacher’s guidance, they discover ways in which and times when they have previously been introduced to the problem and found the solution.

T3 said that they had noticed that if a learner finds a story very interesting, even the weakest learner, they will (lines 242–245):

“[...] sal ek nou sien hulle skryf nou ‘n word uit die storie, of die titel van die storie op ‘n blaadjie en dan gaan Google hulle bietjie dit. En dan bring hulle vir ons uitgeprinte inligting oor dit. So dit was vir my nog baie interessant end it gee ook vir hulle die geleentheid om meer uit te vind.”

[I'll see they are writing a word from the story, or the title of the story on a page, and then they Google them. And then they bring us printed information about it. So, it was still interesting for me, and it also gives them the opportunity to find out more.]

T3 noticed that their learners are using their own initiative to gain additional information, thus developing their SDL (see Figure 5.4) without the teacher necessarily prompting them.

5.3.4 Theme 4: Implementing multimodal modelling of reading comprehension and fostering self-directed learning

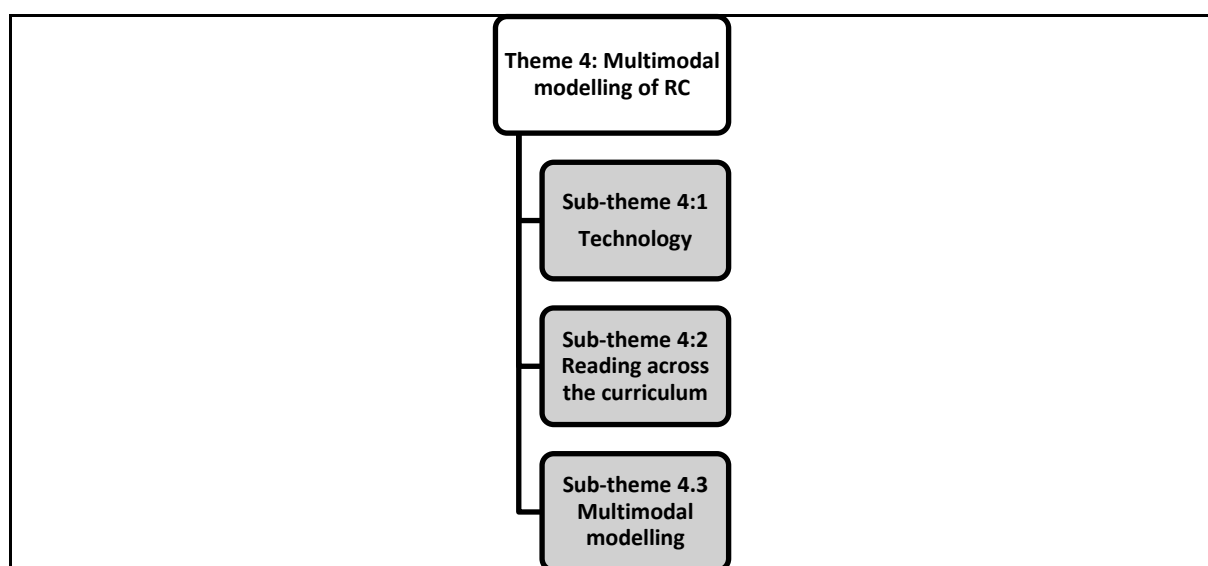


Figure 5.5: Theme 4 and the three sub-themes generated from the data

“By incorporating multimodal modelling of the reading comprehension strategies, we will be able to incorporate the different learning styles, namely visual, auditory, written, and kinaesthetic ... into our teaching” (Sankey et al., 2010, p. 853). By combining the different learning styles, teachers can reach more learners during lessons, thus supporting the use of comprehension strategies. The use of technology in the classroom seems to support learners to develop self-

directed learning. The technology also seems to create the opportunity for learners to make connections with the text. T5 gave the following information (line 90):

“...ek probeer altyd iets uit hulle realiteit te neem” [I always try to use something from their reality.]

Learners were given a topic from their reality and they needed to find information relating to the topic. By doing this, the teacher is encouraging SDL and independent learning. Giving learners the opportunity to find the information allows learners to make the connection of text-to-self and text-to-world.

5.3.4.1 Sub-theme: Technology

Using technology can give the teachers the opportunity to do a flipped classroom lesson. A flipped classroom means the learners bring information about the lesson to class and present or discuss the information they have found. T3 discovered that their learners have access to the internet and the local library. She told learners that they were going to do a story about Natalie du Toit the following week. She told learners to gather some information about Natalie du Toit and bring it to class for the Friday lesson.

When T5 was asked how they incorporate technology into their lessons, they responded as follows (lines 150–152):

“[...] Ek sal baie ydeotjies speel. [...] Ons het ‘n interaktiewe bord met die pen. [...] laat ek vir hulle skryf, maar hulle wil nou nie verkeerd antwoord skryf nie, so hulle oë en ore is altyd oop.” [I will play lots of videos. We have an interactive whiteboard with a pen. I allow learners to write their answers on the board, so their eyes and ears are always open.]

Learners are very keen to participate in lessons that involve technology, especially writing on the interactive whiteboard. The learners appear to look around the class for answers and listen to their peers whispering to them when they write the answer.

T10 explained how she incorporates technology into multimodal modelling with their learners (lines 177–184):

“[...] ek koppel dit baie aan Lewensvaardigheid, aangesien ons al die temas doen en so aan. So wanneer ek ‘n nuwe tema bekend stel, dan gebruik ek my laptop, dan koppel ek my televisie aan die laptop. [...] Ons het nou die afgelope tyd diere, wilde diere, plaasdiere, die diere van die see, varswater diere. Dan sal ek vir hulle ‘n Powerpoint

presentation maak, dan staan daar wilde diere, en dan sal dit die dier wys en die Afrikaans se naam en die Engelse naam by dit wees. So dan gaan ons deur die wilde diere, dan vra ek watter wilde dier hou jy die meeste van, watter wilde dier dink jy is die vinnigste en so aan, en dan het ek ook gewoonlik feiteboek en storieboeke wat uitgestel is en ons blaai daar deur en ons kyk daar deur.”

[I link the themes to Life Skills, as we are doing all the themes. When introducing a new theme, I use my laptop and television. We have currently been covering animals, wild animals, farm animals, ocean animals and freshwater animals. I will create a PowerPoint presentation with wild animal and both the Afrikaans and English names. Then we work through the wild animals, then I will ask which animal you like the most; which wild animal do you think is the fastest; and so forth. And then I will have a factual and storybook displayed, and we will page through and look through it.]

T10 creates PowerPoint presentations for her learners. The themes that are used are integrated with all the subjects. From the teacher’s response and my viewpoint, using multimodal modelling includes technology and paper-based books. This also gives the teacher an ideal opportunity to ask questions (see Figure 5.2) and have discussions with the learners.

Below is how T8 incorporates technology at times in their class (lines 337–340):

“[...] I do use YouTube very often, um, we even use, um, a lot of, um, music when we doing, um, you know, when we- when we doing maybe an introduction to something or to a, um- Whether it be a life skills topic or whether it be an English topic. [...] I use YouTube -quite often. Um, we even use dance [...].”

When T8 incorporates technology, they incorporate different aspects from the curriculum into the lesson, giving the learners more scope to express themselves.

5.3.4.2 Sub-theme: Reading across the curriculum

The following explanation by T8 (lines 457–462) about reading across the curriculum (see 3.9) is relevant should learners have barriers to learning:

“[...] in terms of teaching them the vocab, firstly because if the learners know the vocab the text will become a bit more meaningful um, for them. So, if they, um, if they hear the vocab and it’s repeated [...], in the life skills lesson and in the English lesson as often as they hear it, so they’ll remember it and they will be able to use it across the board. And it

also makes um [lip smack] you know the teaching of grammar a bit more, a bit easier because they know they familiar with the content and the context of the different texts. [...] if they are hearing it more than once, they heard about a specific theme or topic in English now they hear about it again in Life skills. It just makes your job as a, you know, the teacher much easier because now they familiar with it [...].

It is evident that the more the learners are exposed to the vocabulary in the different subjects in the curriculum, the more familiar they will become with the content and the context in which it is used. For the teacher, it helps with consolidating the information and the vocabulary. This also helps the learners recall the information.

T6 gave the following response to bridging the subjects (line 493–495):

“[...] definitief vir begrip. Uhm want dit, want dit help met die vaslegging. So as jy die konsep of die tema dwarsdeur alles Wiskunde, Huistaal, Lewensvaardigheid dwarsdeur dieselfde het, help dit definitief met begrip.” [Definitely for comprehension. Uhm ... because it helps with consolidation. So, if you have the concept or theme throughout Mathematics, Home Language, Life Skills ... throughout all of them, it helps with comprehension.]

T8 and T6 agree that reading across the curriculum creates the ideal space for learners with and without barriers to learning to be included in all spheres of learning. The more learners hear the same vocabulary, for example, the better their recall of the information will be (Tiede & Leboe, 2009). This method can also assist learners in improving their comprehension.

T9 stated the following (lines 1827–1855):

“Works like a dream. [...] Makes it easy for me and makes it easy for them, um, because then everything is connected. [...] I’ve got a timetable, but my lessons are so inter-linked that I don’t, I can’t follow. And I’m getting more out of them because we’re having different conversations and I will remind them, and one or all - somebody will remember but we spoke about that in science. I remember this story. Didn’t we do it in English? I said ja, but it’s in your Geography book. [...] You know, so, connecting it, and it just makes my planning easier. [...] It also opens the kids’ vocabulary far wider, and they just need general knowledge base. [...] Everything is connected somehow. And that’s what I’m trying to tell my colleagues. You don’t have to work so hard. It makes my job; it literally makes my job easier.”

It is evident that reading across the curriculum works very well for this teacher. With everything being connected, their lessons appear to flow from the one to the other. The learners' vocabulary and general knowledge also improves. The learner's recollection of information also improves as they begin to link the information to other subjects.

T5's reply to bridging subjects was as follows (lines 221–225):

“As ek weer die voorbeelde van insekte kan gebruik. Dit is maar om gebruik te maak van elke oomblik om te leer. So, as jy nou, in Wiskunde nou insekte kan gebruik, as ons nou 'n woordprobleem gebruik, 'n voorbeeld maak daarmee. As ek sien, 'n skoenlapper. Ek sien 5 skoenlappers, en elke skoenlapper het 2 vlerke. Hoeveel vlerke is daar in total. So, dit is maar hoe ons alles integreer. By Wiskunde, by Huistaal. Ja, by Huistaal is dit natuurlik die storiëttjies.” [I can reuse the example of insects. It is to use every opportunity to learn. So, if you have insects in Mathematics, we can create a word sum. I see a butterfly. I see 5 butterflies and each butterfly has 2 wings. How many wings are there altogether? This is how we integrate everything. In Mathematics, in Home Language. In Home Language we will have stories.]

T5's theme was insects and they incorporated that into Mathematics by creating word sums. By integrating the subjects, the learners are exposed to more opportunities to learn different things.

The bridging of themes across the curriculum makes it easier for teachers to create links between the subjects. It can make the teachers' planning easier and can allow the lessons to flow easily from one to the next. Using examples from one subject and using those examples in another subject can make learners aware of the connection between them.

5.3.4.3 Sub-theme: Multimodal modelling

With regards to multimodal modelling (see Figure 5.5), T6 said the following (lines 352–362):

“[...] om dit nie net op een manier te doen nie. Om dit op verskillende maniere te doen. Ok, so ons het die voordeel van tegnologie in ons klasse, so ek probeer dit afwissel deur nie altyd vir die kinders altyd 'n fisiese boek te lees nie of 'n Big Book. [...] Ek gebruik eerder een week 'n PowerPoint en dan een week 'n YouTube video, laat dit verskillende medias is. Want kinders leer mos op verskillende maniere en ek dink die groot ding is ook, die kinders raak moeg vir 'n onderwyser se stem. So as ek aanmekaar die stories lees dan raak dit 'boring', as ek dit so kan stel. So ek sal sê veral vir comprehension, om dit te gebruik op verskillende maniere en ek dink ook die leesstof moet nie altyd dieselfde wees

nie. Veral meer in Graad 2 en Graad 3 kan 'n mens oorgaan na resepte en hulle ontleed 'n resep. Laat dit nie net 'n storie is nie. Of jy gebruik byvoorbeeld hierdie week 'n plakkaat. En alles gaan oor hierdie plakkaat en die kinders bou hulle eie storie van die plakkaat of prent.”

[not to do it (multimodal modelling) just one way. To do it in different ways. Okay, so we have the advantage of technology in our classes, so I try to vary it by not always reading a physical book or a Big Book to the children. [...] [I rather use a PowerPoint (presentation) the one week and a YouTube video the following week so that they are different media. Because children learn in different ways and I think the big issue, too, is that the children get tired of a teacher's voice. So, if I read the stories repeatedly, it becomes 'boring', if I can put it that way. So, I'd say, especially for comprehension, using it in different ways, and I also think the reading material should not always be the same. Especially in Grade 2 and Grade 3, one can switch more to recipes and they (learners) analyse a recipe so that it is not just a story. Or you use a poster this week, for example. And it's all about this poster and the kids build their own story from the poster or picture.]

It is evident from the data that T6 uses multimodal modelling to present comprehension to her learners. She uses different ICT media to present comprehension and presents the text itself in different ways, as learners can become tired of constantly listening to the teacher's voice (according to T6). Because T6 varies the media, they accommodate their learners' different learning styles. Accommodating different learning styles may mean that T6 “reaches” more of their learners when presenting comprehension. For comprehension in Grade 2 and 3 learners must be able to analyse a recipe and not just a story. T6 also uses posters or pictures for learners to construct their own stories; this also helps to develop their sentence construction (writing).

T9 stated the following (lines 1119–1131):

“I find it difficult to understand if a teacher, in this day and age, isn't making use of that (viz Google and YouTube). If you are still very one-dimensional, either just bored and new or book and new and nothing else. Then there's a problem because our kids are tech savvy. My kid's set up my laptop, my kid's set up my speaker. The speaker they go to they find the links to YouTube; I'd simply be doing nursery rhymes, find me where we have enough nursery- I need a thing that shows me 10 nursery rhymes. And they do it. So, if I'm not making use of the stuff because half of my class or three quarters of my class has wi-fi

and have devices. [...] So, if I'm not gonna make use of the stuff that is hooking them at home then I'm going to lose most of them."

T9 finds it shocking that teachers are not making use of technology whenever possible, as many learners thrive when this medium is used. As the learners are quite adept at using technology, T9 uses it to their advantage by getting their learners to set up the devices that T9 will be using. By doing this, T9 is building their excitement for the lesson ahead. Learners are exposed to technology at home and to retain their attention T9 uses it in their lessons. Instead of searching for what she wants to use, they get the learners to be a part of the lesson preparation. In so doing, the learners also have a "say" in the lesson, which may develop their self-confidence and gives them part ownership of what they are learning. T9 also uses this to "hook" them for the duration of the lessons and this can improve their concentration span.

T7 explained how she records stories and uses videos for her learners (lines 856–873):

"I used my visualiser. My visual (inaudible 48:11) in class. We also have these visualisers that records the video. It's got these- a little arm that you can bend as you need it um, but then it also just- It can also um, record voice- Through voice-overs as it is now recording, but I normally get a male voice and then my own voice and then a third voice and, I need the same story that I would normally read to the class- in class, like me having a book and them having the book, but then I use the same book. I record the pages then turn around- [...] and I use the different voices, because not all the books that we do are actually available already on the Internet or YouTube. So, then that is my way of then using the video clips to enhance the reading experience for the learners and then also um, we did the sunflower book, for instance, last term and I came across a small YouTube video of showing how time lapses and how the sunflowers in the field actually turn towards the sun [...]. As the Earth is rotating the sunflowers then turn their heads to face the- The sun going by. So little clips and videos, um, and then also, yes, um, for Maths for instance. I can teach them to count on in fives from different numbers and it's dead to them. But now I used an Afrikaans video to show exactly the same thing and I promise you within two days, a group of mine can all understand how to skip five numbers. Just because there was a different teacher's voice and there were these, um, visuals showing them how they skip with these."

T7 used technology that was available at her school and used it to create her own read-aloud stories. She does this, as there are not many resources available online that she can use. Using

video clips, according to T7, enriches the learners' reading experience. During reading, T7 reads across the curriculum by incorporating video clips from factual sources to enhance the topic that she is covering, such as the sunflower. T7 also uses video clips to teach Mathematics, for example counting in fives.

All the themes and sub-themes are connected. Without reading and questioning, reading comprehension cannot take place. Having teachers participate in the intervention series allowed me to gather the necessary data. The intervention series urged teachers to look at encouraging SDL in their classes and for them to know the importance of integrating technology and other means of learning into their daily routine with their learners.

5.4 Synthesis of findings

It is evident from the findings that many teachers focus on asking and generating questions in the Foundation Phase. Although several teachers know about teaching reading comprehension, it appears that it is not being taught. Some teachers are focusing more on reading, as they believe that, post-Covid-19, learners have greater difficulty with reading and reading fluency.

From the results, it appears that teachers' expectations of the research were met and they responded positively to the intervention series. Building learners background knowledge in the Foundation Phase is important, as it is often during this phase that learners are first exposed to topics that they may have no background knowledge about. According to Freebody and Luke (1990) prior knowledge is significant in the different forms of 'reading'.

Reading across the curriculum has had a positive response from teachers. According to the evidence, the learners' vocabulary and general knowledge has expanded as they are reading about the same topic but within different subjects. This evidence shows that even learners with special needs and/or barriers to learning are accommodated and can reap the benefits of reading across the curriculum. Reading across the curriculum enhances the learners' learning experiences as they are exposed to vocabulary and rich information across the subjects. This integration is useful as it is rich in information, vocabulary and general knowledge. Incorporating and using technology is the "hook" that holds the learners' attention. Encouraging learners to become self-directed in their learning still needs work, as several teachers were not sure what the concept entailed.

An important finding during the research process was that in multigrade classes the teachers have been facilitating learners to be self-directed in their learning so that the teacher becomes the facilitator of learning.

From the findings, multimodal modelling has had a positive impact on learners' learning, as different learning styles are accommodated. The incorporation of technology into lessons also assists learners in improving their background knowledge. An additional positive from the findings, is that multimodal modelling assists learners with barriers to learning to be supported.

5.5 Conclusion

From the analysis, it was concluded that asking and using questions have an impact or plays a role in all aspects of reading comprehension. It also indicates that teachers are utilising strategies in the inclusive classroom as play-based learning and multisensory approaches to accommodate all learners. Using these approaches assists teachers with differentiation to meet the diverse/special needs of learners.

Certain themes and sub-themes could be identified from the data analysis and interpretation using Tesch's coding process. The data analysis covered the interviews of the teachers, teacher questionnaires and the focus-group interview. The recommendations stemming from the research are discussed in the following chapter.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The conclusion and recommendations of this study are discussed in this chapter. This chapter concludes this study which was informed by the following research questions: How can multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase assist in improving reading comprehension skills? (sub-question 1); what are the reading comprehension strategies relevant to the Foundation Phase? (sub-question 2); and how can teachers in the Foundation Phase implement multimodal modelling of reading comprehension strategies and foster self-directed learning? These questions and their implications were discussed in Chapter 2 and 3. The recommendations that were highlighted related to teaching reading comprehension, gradual release of responsibility and SDL. From this chapter the limitations to the research are also discussed before the conclusion of the dissertation is presented. This chapter provides an overview of the previous chapters and the recommendations.

6.2 Overview of chapters

In summary, this subsection provides an overview of Chapter 1 to 5.

Chapter 1 presented a roadmap for this study, as it covered the background to the study, relevant definitions and the research questions guiding the research. The purpose of the study, research design, the methodology and methods were also included. In addition, the ethical considerations, the intervention series, the contribution, and the limitations of this study were discussed.

Chapter 2 related to a theoretical overview of the scholarship of reading and reading comprehension. Various definitions of reading were cited and a working definition for reading for this study was adopted. In this regard, *reading is the process of creating meaning through the active collaboration between the reader's current knowledge and the circumstance of the reading situation; reading is using meaning as appropriate to the type of text, purpose and situation; reading is gaining meaning from print, thinking while reading, solving problems during the act of reading and acquiring knowledge.* How to teach reading and the theories of reading were also covered in this chapter. The reading comprehension strategies that are relevant to the Foundation Phase were discussed. Listening and reading play an important role in developing reading comprehension skills, therefore listening was integrated into the research. With the elaboration of the key elements in this chapter, it was highlighted that learners with diverse or special needs need additional support in the inclusive classroom during reading comprehension lessons.

Chapter 3 focused on SDL, multimodality, and multimodal learning in reading. The theoretical framework for SDL was discussed and definitions of SDL were provided. Furthermore, related aspects such as the gradual release of responsibility, learner autonomy, self-regulated learning, SDL in terms of ICT and language learning, as well as metacognition were discussed here. In terms of multimodality, the incorporation of technology was included, as ICT plays a significant role in multimodal modelling.

In preparation of the empirical part of this study, Chapter 4 explained the research design and the methodology that was used during the research stage. This chapter also includes a description of the data collection approach and instruments, and it explains the intervention series that was done with the teachers. This chapter also provided an overview of the ethical considerations of this study.

The data analysis and discussion of the findings were the focus of Chapter 5, as this chapter covered the pertinent research themes, such as reading comprehension strategies relevant for Foundation Phase, self-directed reading comprehension in the Foundation Phase, implementation of multimodal modelling of reading comprehension and fostering self-directed learning. Specific findings for these themes were also discussed here.

Chapter 6 concluded the dissertation with the recommendations and conclusion. A brief overview of the chapters is included. The findings of the research questions are also discussed here. Some recommendations derived from the literature-based and empirical parts of this study were incorporated at this juncture. Future research topics are suggested and the limitations to the study are also highlighted here. I shared my personal reflection on the research process to conclude this chapter.

6.3 Findings

The main research question that guided this research was the following: How can multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase assist in improving reading comprehension skills?

In answering the main research question, the following sub-questions were explored in this study:

- 1) What are the reading comprehension strategies relevant to the Foundation Phase?
- 2) What is the district-based officials' and teachers' perceptions of the state of self-directed reading comprehension in the Foundation Phase?

3) How can teachers in the Foundation Phase implement multimodal modelling of reading comprehension strategies and foster self-directed learning?

In answering the first research sub-question, an in-depth literature review was done to determine the relevant reading comprehension strategies for the Foundation Phase. The CAPS English Home Language (HL) and First Additional Language (FAL) (DBE, 2011a, 2011b) documents were reviewed to find the different strategies. During the semi-structured interviews of the teachers and focus group it was determined that the strategies that were identified in the CAPS English HL and FAL documents were used but referred to differently by teachers. As a learning support teacher, I needed to know what strategies the teachers were teaching in the Foundation Phase, as I had to reinforce those strategies during the lessons when learners came to my class for lessons. Teachers explained during the interviews that they were teaching learners first to read the comprehension questions before reading the text. This strategy does not make provision for reading with meaning.

To answer the second research sub-question, I developed a questionnaire for teachers (Annexure I) that were used in semi-structured interviews for teachers and a focus-group interview. This second question seemed to be challenging for teachers, as several of them were not sure how they could foster SDL in their classes or what SDL was. I needed to explain it to teachers during the intervention series. The focus group, however, was able to give me examples they had come across during class visits where teachers had implemented strategies to guide their learners to become self-directed in their learning. Some teachers had been incorporating SDL in their classrooms without even knowing it. When they explained how they worked with learners within their respective groups, they realised that they had been teaching learners to become independent in their learning and they were beginning to foster SDL.

In answering the third research sub-question, I explored empirically how multimodal modelling of reading comprehension strategies was implemented by teachers in their classrooms. This gave teachers the opportunity to share how they incorporated such approaches into other lessons as well. The intervention strategy also gave teachers and learners a wide range of modes to use when doing reading comprehension, Mathematics or Life Skills. Teachers were very willing to share their experiences of multimodal modelling during the semi-structured interviews. It was evident that for teachers to incorporate technology into teaching reading comprehension strategies could help many learners with diverse or special needs. During the intervention series, I modelled the reading comprehension strategies by incorporating various modes.

When I interviewed teachers, they explained how they used puppets, recorded stories, videos, PowerPoint presentations and so forth to help learners build their background knowledge about an unknown topic, listen to a story or do role-play using puppets. Encouraging the learners to use the puppets began fostering their SDL, as they could express themselves and retell a story using the puppets. Some teachers created their own recordings and incorporated voices of learners and other teachers. This was done to keep the learners' attention for longer and for them to distinguish the different characters in the story. Some teachers added that they allowed learners to set up the laptop, speakers and projector when they were going to use it for a lesson. They also encouraged learners to find appropriate videos linked to a specific topic. By doing this, teachers are encouraging learners to take ownership of their learning and this fosters and leads to SDL.

By answering the main research question: How can multimodal modelling of self-directed reading comprehension strategies in the FP improve comprehension skills, it was identified through the research that reading comprehension strategies need to be taught. Using multimodal modelling, allows the teacher use various modes and thus incorporate the comprehension strategies throughout. As teachers are teaching the reading comprehension strategies, they can begin to foster SDL. The intervention series that was presented to teachers, showed teachers how to incorporate multimodal modelling of the reading comprehension strategies into their daily lessons and across the curriculum.

A recommendation from the researcher and some interviewees in terms of the main research question, was that reading comprehension can be taught in any subject as every text, picture, audio recording and so forth, has the possibility to be a reading comprehension lesson. Using ICT keeps learners engaged and it accommodates learners with diverse and special learning needs.

6.4 Recommendations

A number of recommendations were derived from the literature-based and empirical parts of this study, and they are relayed below.

6.4.1 Teaching reading comprehension

Teaching reading comprehension strategies from Grade R can be made a prerequisite by the Department of Basic Education. Pre-service and novice teachers can be specifically trained by trainers who are equipped to model the reading comprehension strategies (see 2.10), the gradual release of responsibility (see 2.13 and 3.4) and how to foster SDL (see 3.3) in terms of reading

comprehension strategies to improve reading with meaning. This training for pre-service teachers can take place at higher education institutions and it can be offered to novice teachers as part of their professional development by the relevant education departments.

These same reading comprehension strategies can be taught and demonstrated to all teachers, from Grade R upwards, so that there is a flow from one grade to the next. These are crucial skills that learners need to develop with the assistance of their teachers. It is also important for teachers to incorporate ICT and multimodal modelling into their lessons. All learners benefit from good teaching and learning strategies to support reading comprehension. The needs of diverse or special needs learners are met with strategies to support and accommodate their needs.

A short course could be created to train teachers how to teach reading comprehension strategies, how to train and assist learners to become self-directed in their learning and how to incorporate ICT and incorporating multimodal modelling into their teaching.

6.4.2 Gradual release of responsibility and self-directed learning

Training teachers how to use and incorporate the gradual release of responsibility (see 2.13) into their teaching practice to support learners to become self-directed and independent in their learning is important. The gradual release of responsibility can be effective when teaching learners reading comprehension skills, thus guiding learners to use the strategies independently. Teachers need to foster learners to become self-directed in their learning and activities that they need to complete. Furthermore, modelling reading comprehension strategies should become a priority for teachers in the Foundation Phase. When learners become self-directed in their learning, they are often willing to attempt activities that would usually not be given to them in class. Pre-service, novice and veteran teachers need to be trained on how to teach learners to become self-directed in their learning.

6.4.3 Best practices

Opportunities need to be created for teachers to regularly share best practices regarding how they train learners to become self-directed in their learning (see 5.3.1). As such, teachers can create communities of practice through which expertise can be shared with peers.

6.5 Future research

Based on this research, some possible topics for future research were also identified:

- Supporting learners from pre-school to become self-directed in their learning.

- Modelling reading comprehension strategies from or prior to learners entering Grade R.
- Guidelines for teachers in CAPS English Home Language and First Additional Language regarding how to teach reading comprehension strategies and to list the specific strategies that must be taught.
- Ways of sharing of best practices that can assist and support novice teachers through professional development.
- Development of a specific training programme for pre-service teachers from the Early Childhood Development to the Further Education and Training phase on how to teach reading comprehension strategies and use it across the curriculum.

6.6 Limitations

Some limitations were identified through the research process. Because of COVID-19 and governmental restrictions regarding physical access to schools, I was unable to work with the learners and my research focus had to change to teachers (see Table 1.1). My research questions in my proposal (see Chapter 1) had to be adapted to include teachers and exclude learners. The intervention series and interviews took place via an online platform, namely Zoom. Initially the intervention series was going to be presented over three sessions, but I had to reduce it to two. The online platform limited my interaction with the teachers as the sessions and interviews had to be arranged around the power outages schedules. In this context, load shedding related to periods of planned national power outages. Some schools and teachers were unable to attend the online sessions because of internet problems that occurred after load shedding. Teachers also did not have data on their cell phones to join the sessions.

6.7 Personal reflection of research process

My research journey has not been smooth or easy. I had to overcome several personal battles while continuing with the research. Initially, my research was focused on the practical application of modelling self-directed reading comprehension strategies. Then the Covid-19 pandemic occurred and my research proposal and focus had to shift to teachers. I had to resubmit my research proposal, as the DBE did not allow any research done at schools.

It was not an easy mindshift. I needed to review the information that I had and adapt it to create questionnaires for teachers and experts in the field. I also had to find different ways to contact schools to get teachers to participate in my research and I had to create a flyer that would grab teachers' attention so that they would agree to be participants in my intervention series.

The ethics application also needed to be adapted to include the questionnaires and consent forms for the teachers and the experts in the field. I then also had to set up a questionnaire for the teachers (Annexure I) and create questions for a focus group discussion with the experts in the field.

It was not easy getting teachers to agree to join my research. Some gave consent, then withdrew or did not join the online sessions. And then of course power outages happened during the same time that I was to do online sessions with the teachers. This was extremely frustrating, not only for me but for the teachers as well. Teachers at some schools who had initially agreed to participate could not join sessions, no matter how much I tried to accommodate everyone. From initially having nearly twenty teachers, the number was reduced to nine as load shedding affected everyone. However, I was fortunate to have three teachers who were willing to do the semi-structured interviews after school hours. I had intended to have three sessions of the intervention series with teachers, but I had to reduce it to two because of time constraints.

When load shedding was announced, I felt quite demotivated. Teachers were also not responding to the questionnaire that I had sent to them. During this time, I also had to apply for an extension from the WCED to conduct the research.

The interviews that took place after the online sessions was quite fruitful, as teachers wanted to share so much with me. I interviewed teachers from the first year of teaching up to those who have been teaching for 15 years or more. It was interesting to note the differences in opinion that they had when answering certain questions, especially questions about attending workshops or training sessions for professional development. I also interviewed a novice teacher who started teaching in 2020. They shared that it felt like they have just started teaching, as they must learn and do so much more now than during the Covid-19 pandemic.

The pandemic affected most of the teachers. Some felt that they must teach learners how to read and therefore cannot focus on comprehension. I found this to be a bit disconcerting, as teaching reading can still be complemented by reading comprehension. One teacher told me that because of the Covid-19 pandemic, learners had basically lost a year of schooling and that it is difficult to do catch-up if you still have to focus on the curriculum. They also added that the curriculum is overloaded and that they cannot do any reading for fun with the learners or consolidate work that has been covered. This has also affected the learners' motivation for learning and school attendance. During the pandemic, learners only attended school every alternate day and every

second Friday. Teachers also need to take the learners' emotional well-being into consideration, as it seems that it is almost a shock to them that they must attend school every day.

I can empathise with teachers who are frustrated and exhausted because of everything that they must take into consideration in addition to their daily teaching. For some teachers, during the interviews, it was an opportunity to "offload" or share their frustrations, including the expectations of the education department that they feel are too much considering everything else that they need to deal with and are currently dealing with.

Two teachers were quite happy to share their recent accomplishments. One teacher said that they were part of the team that developed the box of resources that teachers of multigrade classes can utilise. They would also be doing a presentation at the Cape Teaching and Leadership Institution regarding teaching a multigrade class. One of the experts in the field was also a multigrade teacher prior to becoming a curriculum advisor.

Some teachers said that they get learners to read the questions before reading the text, and learners need to underline the keywords of the questions that they identify in the text. No mention was made about how they teach reading comprehension strategies.

As teachers were "complaining" about the learners' poor reading and sentence construction ability, especially after the pandemic, the experts in the field differed. They said that reading has always been poor and the pandemic has only served to highlight this.

I found it worrisome when teachers said that no workshops or training session took place during 2020 and 2021, nor were any presented online. So, for the novice teachers, my intervention series was their first workshop.

6.8 Conclusion

This aims of the research were to identify the reading comprehension strategies for the Foundation Phase and to find out how to foster self-directed learning and to use multimodal modelling of reading comprehension strategies. Based on the qualitative research on reading comprehension strategies, SDL and multimodal modelling, it can be concluded that teachers need to be trained on how to incorporate reading comprehension strategies effectively in order to teach and train learners to become self-directed in their learning and thus applying multimodal modelling throughout the learning process. This process also assists in supporting learners with barriers to learning.

REFERENCE LIST

- Adler, M. (2022, August 8). *fs.blog*. Retrieved from fs.blog: <https://fs.blog/levels-of-reading/>
- Afflerbach, P., Pearson, P., & Paris, S. (2008). Clarifying Differences Between Reading Skills and Reading Strategies. *The Reading Teacher*, 61(5), 364-373.
- Ahmadi, S. M. (2016). The Importance of Listening Comprehension in Language Learning. *International Journal of Research in English Education* (pp. 7-10).
- Akpan, V. I., Igwe, U. A., Mpamah, I. B., & Okoro, C. O. (2020). Social Constructivism: Implications on Teaching and Learning. *British Journal of Education* (pp. 49-56).
- Allee-Herndon, K. A., Killingsworth Roberts, S., Hu, B., Clark, M. H., & Stewart, M. L. (2022). Let's Talk Play! Exploring the Possible Benefits of Play-Based Pedagogy on Language and Literacy Learning in Two Title 1 Kindergarten Classrooms. *Early Childhood Education Journal*, (pp. 119-132).
- Anderson, R., Hiebert, E., Scott, J., & Wilkinson, I. (1985). *Becoming a nation of readers: The report of the commission on reading*. Washington, DC: National Institute of Education.
- Arshad, M., & Chen, W. H. (2009). Vygotsky's socio-cultural theory of literacy: Scaffolding children to read and write at an early age. *Wacana, Journal of the Humanities of Indonesia* (pp. 319-334).
- Aryadoust, V. (2019). An Integrated Cognitive Theory of Comprehension. *International Journal of Listening* (pp. 71-100).
- Babbie, E., & Roberts, L. W. (2018). *Fundamentals of Social Research*. Canada: Nelson Education.
- Bandura, A. (1991). Social Cognitive Theory of Self-Regulation. *Organizational Behaviour and Human Decision Processes* (pp. 248-287).
- Bandura, A. (2021, September 11). *Learning Theories*. Retrieved from Social learning theory: <https://learning-theories.com/>

Bandura, A. (Ed.) (1999). *Self-efficacy in Changing Societies*. Cambridge: Cambridge University Press.

Beck, S., & Condy, J. (2017). Instructional principles used to teach critical comprehension skills to a Grade 4 learner. *Reading & Writing – Journal of the Reading Association of South Africa* (pp. 1-8).

Bell, S. M., & McCallum, R. S. (2016). *Handbook of Reading Assessment: A One-Stop Resource for Prospective and Practicing Educators* (e-Book). New York; Abingdon: Routledge.

Bezemer, J., & Jewitt, C. (2009). Social Semiotics: In J. Verschueren, & E. Versluys (Eds.), *Handbook of Pragmatics*. Amsterdam: John Benjamins Publishing (pp. 1-13).

Botero, G. G., Questier, F., & Zhu, C. (2018). Self-directed language learning in a mobile-assisted, out-of-class context: do students walk the talk? *Computer Assisted Language Learning* (pp. 1-28).

Botha, D., Hugo, N., & Mthembu, L. (2008). *A Balanced Language Approach*. Johannesburg: READ Educational Trust.

Bull, B. D. (2017). *Adventures in Self-Directed Learning: A Guide for Nurturing Learner Agency and Ownership*. Eugene, Oregon: Wipf and Stock Publishers.

Cain, K., & Oakhill, J. (2007). *Children's Comprehension Problems in Oral and Written Language: A Cognitive Perspective*. New York: The Guilford Press.

Calkins, L. M. (2001). *The Art of Teaching Reading*. New York: Longman.

Chanthap, N., & Wasanasomsithi, P. (2019). The Effect of Integration of Blended Learning and Extensive Reading Instructional Model on Thai EFL Undergraduate Students' Learner Autonomy. *Language Education and Acquisition Research Network Journal* (pp. 76-100).

Cherry, K., & Sasman, D. (2021, March 15). *Very Well Mind*. Retrieved from <https://www.verywellmind.com>

Cochrane Bond, I. (2019). Multimodal Pedagogies for Teaching Language and Grammar in the Early Years. In H. de Silva Joyce, & S. Feez (Eds.), *Multimodality Across Classrooms: Learning About and Through Different Modalities* (pp. 66-83). New York: Routledge.

Cohen, L., Mannion, L., & Morrison, K. (2018). *Research Methods in Education* (8th ed.). New York: Routledge.

Collier, C. (2022). Becoming an Autonomous Learner: Building the Skills of Self-Directed Learning. *Journal of Transformative Learning* (pp. 111-120).

Cotterall, S., & Crabbe, D. (Eds). (1999). *Learner Autonomy in Language Learning: Defining the Field and Effecting Change*. Frankfurt: Die Deutsche Bibliothek.

Creswell, J. (2013). *Qualitative Inquiry and Research Design* (3rd ed.). Los Angeles: Sage.

Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches Fifth Edition*. California: SAGE Publications Inc.

Creswell, J., Ebersohn, L., Ferreira, R., Ivankova, N., Jansen, J., Nieuwenhuis, J., Pieterse, J., Plano Clark, V. (2020). *First steps in research* (3rd ed.). South Africa: Van Schaik Publishers.

Daniels, E., & Pyle, A. (2018, February). *Defining play-based learning*. Retrieved from ceril.net: <http://ceril.net/index.php/articulos?id=594>

DBE. (2001). *Education White Paper 6: Special Needs Education – Building an inclusive education and training system*. Pretoria, South Africa: Department of Basic Education.

DBE. (2011a). *CAPS English HL Grade R–3*. Pretoria, South Africa: Department of Basic Education.

DBE. (2011b). *English FAL Grade R–3*. Pretoria, South Africa: Department of Basic Education.

De Koning, B. B., & Van der Schoot, M. (2013). Becoming Part of the Story! Refueling the Interest in Visualization for Reading Comprehension. *Educational Psychology Review* (pp.261-287).

De Lange, M. M., Winberg, C., & Dippenaar, H. (2020). Why the English Home Language Curriculum and Assessment Policy Statement will not improve learners' reading comprehension. *Reading & Writing – Journal of the Reading Association of South Africa*. (pp. 1-9).

- Deci, E. L., & Ryan, R. M. (2012). Self-Determination Theory. In P. A. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of Theories of Social Psychology (Volume 1)* (pp. 416-437). London: SAGE.
- Dermody, M. M. & Speaker, R. B. (1999). Reciprocal Strategy Training in Prediction, Clarification, Question Generating and Summarization to Improve Reading Comprehension. *Reading Improvement* (pp. 16-23).
- Dey, P., & Bandyopadhyay, S. (2019). Blended learning to improve quality of primary education among underprivileged school children in India. *Education and Information Technologies, 1995-2016*.
- Donald, D., Hardman, J., Lazarus, S., & Moolla, N. (2020). *Educational Psychology in Social Context: Ecosystemic applications in southern Africa* (6th ed). Cape Town: Oxford University Press.
- Donald, D., Lazarus, S., & Moolla, N. (2014). *Educational Psychology in Social Context: Ecosystemic applications in southern Africa*. Cape Town: Oxford University Press.
- Du, F. (2013). Student Perspectives of Self-Directed Language Learning: Implications for Teaching and Research. *International Journal for the Scholarship of Teaching and Learning* (pp. 1-16).
- Duffy, G. G., & Israel, S. E. (2014). *Handbook of Research on Reading Comprehension*. New York and London: Taylor and Francis.
- Elliott, M., Fairweather, I., Olsen, W., & Pampaka, M. (2016). *A Dictionary of Social Research Methods*. Cape Town: Oxford University Press.
- Engelbrecht, A., & Swanepoel, H. (2018). *Embracing diversity through multi-level teaching*. Cape Town, SA: Juta.
- Fairbanks, C. M., Cooper, J. E., Masterson, L., & Webb, S. (2014). Culturally Relevant Pedagogy and Reading Comprehension. In G. G. Duffy, & S. E. Israel (Eds.), *Handbook of Research on Reading Comprehension* (pp. 586-606). New York and London: Taylor and Francis.
- Fisher, D., & Frey, N. (2008). Homework and the Gradual Release of Responsibility: Making "responsibility" possible. *English Journal* (pp. 40-45).

- Fisher, D., Fisher, N., & Frey, N. (2014). *Effective Use of the Gradual Release of Responsibility Model. In Better Learning Through Structured Teaching: A Framework for the Gradual Release of Responsibility*. Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).
- Florian, L., & Walton, E. (2017). Inclusive Pedagogy within the Southern African Context. In P. Engelbrecht, & L. Green (Eds.), *Responding to the Challenges of Inclusive Education in Southern Africa* (2nd ed.) (pp. 167-180). Pretoria: Van Schaik.
- Freebody, P. & Luke, A. (1990). "Literacies' Programs: Debates and Demands in Cultural Context. *Prospect: Prospect: an Australian journal of TESOL*, (pp.7-16).
- Freire, P. (1970; 2017). *Pedagogy of the Oppressed*. New York/London: Bloomsbury Publishing Inc.
- Freire, P. (1985). Reading the World and Reading the Word: An Interview with Paulo Freire. *Language Arts* (pp. 15-21).
- Gehsmann, K. (2012). Stages and Standards in Literacy: Teaching Developmentally in the Age of Accountability. *Journal of Education* (pp. 5-16).
- Gibbons, M. (2002). *The Self-directed Learning Handbook: Challenging Adolescent Students to Excel*. San Francisco: John Wiley and Sons Inc.
- Grow, G. O. (1991). Teaching Learners to be Self-directed. *Adult Education Quarterly*, (pp. 125-149).
- Guglielmino, L. M. (1977). Development of the self-directed readiness scale (Doctor in Education). *Development of the self-directed readiness scale*. Athens, Georgia.
- Guglielmino, L. M. (2003). *Contributions of the International Self-Directed Learning Symposia. Adult Learning*, (pp. 23-25).
- Guglielmino, L. M. (2021). Contributions of the International Society for Self-Directed Learning Symposia. *Adult Learning/Self-Directed Learning* (pp. 23-25).
- Guglielmino, L., & Guglielmino, P. (2001). Moving Towards a Distributed Learning Model Based on Self-Managed Learning. *Sam Advanced Management Journal* (pp. 36-43).

Hampel, R. (2020). Disruptive Technologies and Language Learner Identity in the Digital Age. *RILAE Online Symposium*.

Hampel, R., Hauck, M. (2006) Computer-mediated language learning: Making meaning in multimodal virtual learning spaces. *JALT CALL Journal* (pp. 3-18).

Hanekom, A., Uys, R. M., Spangenberg, M., & Louw, H. (2010). *AHA-Funda Literacy Skills Intervention Program*. Parow East, Cape Town: Ebony Books.

Hedge, T. (2003). *Teaching and learning in the Language Classroom*. Oxford: Oxford University Press.

Hilden, K., & Jones, J. (2013, April/May). Effective Interactive Read-alouds Build Stronger Comprehension. *Reading Today* (pp. 17-19).

Ho, C. M., Anderson, K. T., & Leong, A. P. (2011). *Transforming Literacies and Language: Multimodality and Literacy in the New Media Age*. London: Continuum International Publishing Group.

Hobsbaum, A., Gamble, N., & Reedy, D. (2006). *A Handbook for Teaching Guided Reading at Key Stage 2*. London: Institute of Education, University of London.

Howie, S., Van Staden, S., Tshele, M., Dowse, C., & Zimmerman, L. (2012). *PIRLS 2011 South African Children's Reading Literacy Achievement*. Pretoria: Centre for Evaluation and Assessment.

Hughes, M. T., & Talbott, E. (. (2017). *The Wiley Handbook of Diversity in Special Education*. West Sussex, UK: John Wiley & Sons Inc.

Ioannou, A., Vasiliou, C., & Zaphiris, P. (2016). Problem-based Learning in Multimodal Learning Environments: Learners' Technology Adoption Experiences. *Journal of Education Computing* (pp. 1-19).

ISSDL. (2021). *International Society for Self-directed Learning Symposium*.

James, M. (2006). Assessment, Teaching and Theories of Learning. In J. Gardner (Eds.), *Assessment and Learning* (pp. 47-60). London: SAGE.

Jewitt, C. (2008). Multimodal Discourses across the Curriculum. In M. Martin-Jones, A. M. de Mejia, & N. H. Hornberger (Eds.), *Encyclopaedia of Language and Education, 2nd Edition, Volume 3: Discourse and Education* (pp. 357-367). New York: Springer Science+Business Media LLC.

Jewitt, C. (2013). *Learning and Communication in Digital Multimodal Landscapes*. London: Institute of Education Press: Professorial Lecture Series.

Kamei-Hannan, C., & Chang, Y. C. (2022). Using a multisensory storytelling approach to improve language and comprehension: A pilot study. *British Journal of Visual Impairment* (pp. 175-186).

Kamhi, A., & Catts, H. (2002). The language basis of reading: Implications for classification and treatment of children with reading disabilities. In K. Butler, & E. Silliman (Eds.), *Speaking, reading, and writing in children with language learning disabilities: New paradigms in research and practice* (pp. 45-72). Mahwah: Lawrence Erlbaum Pub.

Kendeou, P., & O'Brien, E. J. (2018). Reading Comprehension Theories. In M. F. Schober, D. N. Rapp, M. A. Britt, M. F. Schober, D. N. Rapp, & M. A. Britt (Eds.), *The Routledge Handbook of Discourse Processes* (pp. 7-21). New York: Routledge.

Kibui, W. (2012). *Reading and Comprehension in the African Context: A Cognitive Enquiry*. Limuru: Zapf Chancery Publishers Africa.

Kim, H., (2020). The Efficacy of Zoom Technology as an Educational Tool for English Reading Comprehension Achievement in EFL Classroom. *International Journal of Advanced Culture Technology* (pp. 198-205).

Kirk, S., Gallagher, J. J., Coleman, M. R., & Anastasiow, N. (2009). *Educating Exceptional Children*. Boston, New York: Houghton Mifflin Harcourt Publishing Company.

Knowles, M. (1975). *Self-Directed Learning: A guide for teachers and learners*. New Jersey: Cambridge Adult Education.

Korhonen, V. (2010). Dialogic literacy: A sociocultural literacy learning approach. *Practising Information Literacy: Bringing Theories of Learning, Practise, and Information Literacy Together* (pp. 211-226).

Kress, G. (2003). *Literacy in the New Media*. London & New York: Routledge.

Kress, G. (2010). A Grammar for meaning-making. In *Beyond the grammar wars*. (pp. 243-263). Abingdon: Routledge.

Kress, G., & Bezemer, J. (2008). Writing in Multimodal Texts – A Social Semiotic Account of Designs for Learning. *Written Communication* (pp. 166-195).

Kress, G., & Van Leeuwen, T. (2001). *Multimodal Discourse: The modes and media of contemporary communication*. New York: Oxford University Press.

Kress, G. (2009). *Multimodality: A social semiotic approach to contemporary communication*. London: Routledge.

Kress, G. (1997). *Before Writing: Rethinking the paths of literacy*. New York: Routledge.

Kruidenier, J. R., MacArthur, C. A., & Wrigley, H. S. (2010). Adult Education Literacy Instruction: *A Review of the Research*. Washington D.C.: National Institute for Literacy.

Landsberg, E., Krüger, D., & Nel, N. (2005a). *Addressing Barriers to Learning: A South African Perspective* (5th ed.). Pretoria: Van Schaik.

Landsberg, E., Krüger, D., & Swart, E. (2016b). *Addressing Barriers to Learning – A South African Perspective*. Pretoria: Van Schaik Publishers.

Landsberg, E., Krüger, D., & Swart, E. (2016c). *Addressing Barriers to Learning: A South African Perspective* (eBook). Pretoria: Van Schaik Publishers.

Lavrakas, P. J. (2008). *Encyclopaedia of Survey Research Methods*. Los Angeles: Sage.

Lin, N. C., & Cheng, H. (2010). Effects of gradual release of responsibility model on language learning. *Procedia Social and Behavioural Sciences* (pp. 1868-1872).

Linkous, H. M. (2021). Self-Directed Learning and Self-Regulated Learning: What's the Difference? A Literature Analysis. *American Association for Adult and Continuing Education Inaugural 2020 Conference Proceedings* (Online, October 27–30, 2020) (pp. 118-122). American Association for Adult and Continuing Education.

Lipka, O., & Siegel, L. S. (2012). The development of reading comprehension skills in children learning English as a second language. *Read Write* (pp. 1873-1898).

Little, D. (2007). Language Learner Autonomy: Some fundamental considerations revisited. *International Journal of Language Learning and Teaching* (pp. 14-29).

Liu, W. C., Wang, J. C., & Ryan, R. M. (2016). *Building Autonomous Learners: Perspectives from Research and Practice using Self-Determination Theory*. Singapore: Springer.

Liu, Y. (2015). An Empirical Study of Schema Theory and Its Role in Reading Comprehension. *Journal of Language Teaching and Research*. (pp. 1349-1356).

Lorena Parra, G. (2021). The effects of multisensory approach in the development of the reading comprehension skill. *INTCESS 2021 8th International Conference of Education and Education of Social Sciences* (pp. 65-73).

Lynch, M. (2021, April 3). *The Edvocate*. Retrieved from The Edvocate: <https://www.theedadvocate.org/using-prediction-to-improve-your-students-reading-comprehension-skills/>

Lynch, M. (2019, March 13). What are the five stages of reading development? Retrieved from The Edvocate: <https://www.theedadvocate.org/what-are-the-five-stages-of-reading-development/>

Maddox, K., & Feng, J. (2013). Whole Language Instruction vs. Phonics Instruction: Effect on Reading Fluency and Spelling Accuracy of First Grade Students. *Georgia Educational Research Association Annual Conference*, (pp. 1-28). Savannah, Georgia.

Mahdavi, J., & Tensfeldt, L. (2013). Untangling Reading Comprehension Strategy Instruction: Assisting Struggling Readers in the Primary Grades. *Preventing School Failure: Alternative Education for Children and Youth*, (pp.77-92).

Masemola Tshoswane, I., Maile, S., Mashaba, E., & Ntsana, M. (2022). Play-based learning as a strategy to prepare Grade R learners for formal education in Waterberg District of Limpopo, South Africa. *Creative Education*, (pp. 3225-3237).

Maree, K. (2016). *First Steps in Research (2nd ed.)*. Pretoria: Van Schaik.

Maree, K. (2019). *First steps in research 3*. Pretoria: Van Schaik.

Massaro, D. W. (2012). Multimodal learning. In N. M. Seel (Ed.), *Encyclopaedia of the Sciences of Learning* (pp. 2375-2378). California: Springer.

Maynes, N., Lynn, J.-S., & Dunn, C. (2010). Modelling and the Gradual Release of Responsibility: What Does it Look Like in the Classroom? *Brock Education* (pp. 65-77).

McLaughlin, M. (2012). Reading Comprehension: What every teacher needs to know. *The Reading Teacher*, (pp. 432-440).

Mentz, E., de Beer, J., & Bailey, R. (2019). *Self-Directed Learning for the 21st Century: Implications for Higher Education*. Cape Town: AOSIS (Pty) Ltd.

Merriam, S. B. (2009). *Qualitative Research: A Guide to Design and Implementation – Revised and Expanded from Qualitative Research and Case Study Applications in Education*. San Francisco: Jossey-Bass.

Moreillon, J. (2007). *Collaborative Strategies for Teaching Reading Comprehension*. Chicago: American Library Association.

Muijselaar, M. M., Swart, N. M., Steenbek-Planting, E. G., Droop, M., Verhoeven, L., & De Jong, P. (2017). Developmental Relations Between Reading Comprehension and Reading Strategies. *Scientific Studies of Reading* (pp. 194-209).

Nappi, J. S. (2017). The Importance of Questioning in Developing Critical Thinking Skills. *The Delta Kappa Gamma Bulletin: International Journal for Professional Educators* (pp. 30-41).

Narey, M. J. (2017). Multimodal Visions: Bringing “Sense” to Our Twenty-First Century Texts. In M. J. Narey (Ed.), *Multimodal Perspectives of Language, Literacy, and Learning in Early Childhood*. Pittsburgh: Springer.

Ness, M., & Kenny, M. (2016). Improving the Quality of Think-Alouds. *The Reading Teacher* (pp. 453-460).

Ngo, T. (2019). Teaching Multimodal Literacy. In H. de Silva Joyce, & S. Feez (Eds.), *Multimodality Across Classrooms: Learning About and Through Different Modalities* (pp. 115-127). New York: Routledge.

Nieuwenhuis, J. (2022). Introducing qualitative research. In K. Maree (Ed.), *First steps in research* (pp. 56-77). Pretoria: Van Schaik Publishers.

Nouri, J. (2019). Students Multimodal Literacy and Design of Learning during Self-studies in Higher Education. *Tech Know Learn* (pp. 683-698).

- Oakhill, J., Cain, K., & Elbro, C. (2015). *Understanding and Teaching Reading Comprehension: A Handbook*. Abingdon: Routledge.
- O'Halloran, K. L., Ton, S., Wiebrands, M., Sheffield, R., Wignell, P., & Turner, P. (2019). The Multimodal Classroom in the Digital Age: The Use of 360 Degree Videos for Online Teaching and Learning. In J. de Silva, & S. Feez (Eds.), *Multimodality Across Classrooms: Learning About and Through Different Modalities*. New York: Routledge.
- Okeke, C., & Van Wyk, M. (2015). *Educational Research: An African Approach*. Cape Town: Oxford University Press.
- Olivier, J. (2020a). Self-directed Multimodal Learning to Support Demiurgic Access. In D. Burgos (Ed.), *Radical Solutions and eLearning: Practical Innovations and Online Educational Technology* (pp. 117-130). Singapore: Springer.
- Olivier, J. (2020b). Self-directed multimodal learning within a context of transformative open education. In J. Olivier (Ed.), *Self-directed multimodal learning in higher education* (pp. 1-49). Cape Town: AOSIS.
- Palincsar, A., & Brown, A. (1984). Reciprocal Teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction* (pp. 117-175).
- Pearson, P., & Gallagher, M. (1983). The instruction of reading comprehension. *Contemporary Educational Psychology* (pp.317-345).
- Pearson, P., & Johnson, D. (1978). *Teaching Reading Comprehension*. New York: Holt, Rhinehart and Winston.
- Pinnell, G. S. (1999). Effective literacy programs. *Council Connections* (pp. 9-11).
- Popović, K. (2012). Self-directed learning. In P. Jarvis, & M. Watts (Eds.), *The Routledge International Handbook of Learning* (pp. 216-227). Abingdon: Routledge.
- Pourhossein, Gilakjani, A., & Ahmadi, M. (2011). A Study of Factors Affecting EFL Learners' English Listening Comprehension and the Strategies for Improvement. *Journal of Language Teaching and Research* (pp. 977-988).

Prado, L., & Plourde, L. A. (2011). Increasing Reading Comprehension Through the Explicit Teaching of Reading Strategies: Is there a difference among genders? *Reading Improvement* (pp. 32-43).

Pretorius, E. J. (2014). Supporting transition or playing catch-up in Grade 4? Implications for standards in education and training. *Perspectives in Education* (pp. 51-76).

Pretorius, E. J., & Klapwijk, N. M. (2016). Reading Comprehension in South African Schools: Are Teachers Getting It, And Getting It Right? *Per Linguam* (pp. 1-20).

Pretorius, E. J., & Stoddelsma, L. (2017). How is their word knowledge growing? Exploring Grade 3 vocabulary in South African township schools. *South African Journal of Childhood Education* (pp. 1-13).

Pretorius, E., & Murray, S. (2019). *Teaching Reading Comprehension*. Cape Town: Oxford University Press.

Pretorius, E., & Spaul, N. (2016). Exploring relationships between oral reading fluency and reading comprehension amongst English second language readers in South Africa. *Read Write* (pp. 1449-1471).

Qian, D. (1999). Assessing the roles of depth and breadth of vocabulary knowledge in reading comprehension. *Canadian Modern Language Review* 56 (pp. 282-308).

Rapley, E. (2017). 'Seeing the light.' Personal epiphanies and moving towards interpretivism; a researcher's tale of exploring teacher pedagogic practice. *Ethnography and Education* (pp. 1-20).

Ravindran, K., & Jayanthi, R. (2019). Schematic Approach in Listening Comprehension. *Language in India* (pp. 76-81).

Reeve, J. (2002). Self-Determination Theory Applied to Educational Settings. In E. L. Deci, & R. M. Ryan, *Handbook of Self-Determination Research* (pp. 183-203). Rochester, New York: University of Rochester Press.

Ridley, J. (2003). Learner's ability to reflect on language and on their learning. In D. Little, J. Ridley, & E. Ushioda (Eds.), *Learner Autonomy in the Foreign Language Classroom* (pp. 78-89). Dublin: Authentik.

Rosenshine, B. (1997). Advances in Research on Instruction. In J. Lloyd, E. Kameanui, & D. Chard (Eds.), *Issues in educating students with disabilities* (pp. 197-221). Mahwah, N.J: Lawrence Erlbaum.

Ryan, G. (2018). Introduction to positivism, interpretivism and critical theory. *Nurse Researcher* (pp. 14-20).

Ryan, R. M., & Deci, E. L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development and Well-Being. *American Psychologist* (pp. 68-78).

Ryan, R. M., & Deci, E. L. (2017). *Self-determination Theory: Basic Psychological needs in Motivation, Development, and Wellness*. New York: Guilford Press.

Saldaña, J. (2011). *Fundamentals of qualitative research*. Oxford: Oxford University Press.

Sankey, M., Birch, D., & Gardiner, M. (2010). Engaging students through multimodal environments: The journey continues. *Ascilite 2010 Sydney* (pp. 852-863). Sydney: Ascilite.

Schaffer, D. (2022, February 27). *2019 Systemic Test results show Western Cape Education strategies are working*. Retrieved from wcedonline.westerncape.gov.za:
www.wcedonline.westerncape.gov.za

Scott, D. B., & Dreher, M. J. (2016). Student Thinking Processes while Constructing Graphic Representations of Textbook Content: What Insights Do Think-Alouds Provide? *Reading Psychology* (pp. 286-317).

Sebole, L. L., Khoza-Shangase, K., & Mophosho, M. (2019). The reading comprehension of grade 5 Setswana speaking learners in rural schools in South Africa: does home language matter? *Per Linguam* (pp. 59-73).

Sejdiu, S. (2017, December). *Are Listening Skills Best Enhanced Through the Use of Multimedia Technology*. Retrieved from Digital Education Review: <http://greav.ub.edu/der/>

Semiotic Terminology. (2022, January 26). Retrieved from uvm.edu:
https://www.uvm.edu/~tstreete/semiotics_and_ads/terminology.html

Serafini, F. (2012). Reading Multimodal Texts in the 21st Century. *Research in the Schools* (pp. 26-32).

Serafini, F. (2014). *Reading the Visual: An Introduction to Teaching Multimodal Literacy*. New York: Teachers College Press.

Sert, N., & Boynuegri, E. (2017). Digital technology use by the students and English teachers and self-directed language learning. *World Journal of Educational Technology* (pp. 24-34).

Shanahan, T. (2020, May/June). Rethinking Reading Comprehension: Are we really teaching students? *Literacy Today* (pp. 30-31).

Sheridan, E. M. (1981). Theories of Reading Implications for Teachers. *Reading Horizons* (pp. 66-71).

Sim, J., & Waterfield, J. (2019). Focus group methodology: some ethical challenges. *Quality and Quantity* (pp. 3003-3022).

Snow, C. (2002). A Research Agenda for Improving Reading Comprehension. In C. Snow, *Reading for Understanding: Toward an R&D Program in Reading Comprehension* (e-Book) (pp. 29-59). Santa Monica: The RAND Corporation.

Snow, C. E., Burns, S., & Griffin, P. (1998). *Preventing Reading Difficulties in Young Children*. Washington DC: National Academy Press.

Stein, P. (2008). *Multimodal Pedagogies in Diverse Classrooms: Representation, rights and resources*. Abingdon: Routledge

Tan Wee Hin, L., & Subramaniam, R. (2009). *Handbook of Research on New Media Literacy K-12 Level: Issues and Challenges*. Hershey (PA), London: IGI Global.

Tan, S., O'Halloran, K. L., & Wignell, P. (2016). Multimodal Research: Addressing the Complexity of Multimodal Environments and the Challenges for CALL. *European Association for Computer Assisted Language Learning* (pp. 253-273).

Taylor, D., & Mifflin, B. (2008). Problem-based Learning: Where are we now? *Medical Teacher* (pp. 742-763).

Taylor, S. J., Bogdan, R., & DeVault, M. L. (2016). *Introduction to Qualitative Research - A Guidebook and Resource*. New Jersey: Wiley.

Tennent, W. (2015). *Understanding Reading Comprehension: Processes and Practices*. Los Angeles: Sage.

Tesch, R. (2013). *Qualitative Research: Analysis Types and Software Tools*. London: Routledge.

Thanh, N. C., & Thanh, T. T. (2018). The Interconnection between Interpretivist Paradigm and Qualitative Methods in Education. *American Journal of Educational Science* (pp. 24-27) American Institute of Science.

Thomas, J. W., Strage, A., & Curley, R. (1988). Improving Students' Self-Directed Learning: Issues and Guidelines. *The Elementary School Journal* (pp. 313-326). Retrieved from <https://doi-org.nwulib.nwu.ac.za/10.1086/461541>

Thompson, M. (2008). Multimodal Teaching and Learning: Creating Spaces for Content Teachers. *Journal of Adolescent & Adult Literacy* (pp. 144-153).

Tiede, H. L., & Leboe, J. P. (2009). Metamemory judgments and the benefits of repeated study: Improving recall predictions through the activation of appropriate knowledge. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, (pp. 822-828). <https://doi.org/10.1037/a0015122>

Tracey, D. H., & Morrow, L. M. (2006). *Lenses on Reading: An introduction to theories and models*. New York: Guilford Press.

Tracey, D. H., & Morrow, L. M. (2012). *Lenses on Reading: An introduction to theories and models*. New York: Guilford Press.

Tracey, D. H., & Morrow, L. M. (2017). *Lenses on Reading: An introduction to theories and models*. New York: Guilford Press.

Van der Walt, H. (2016). The feasibility of grafting self-directed learning theory onto the capability theory. In E. Mentz, & I. Oosthuizen (Eds.), *Self-directed learning research: An imperative for transforming the educational landscape* (pp. 1-34). Durbanville: AOSIS.

Van Deur, P. (2017). *Managing Self-Directed Learning in Primary School Education: Emerging Research and Opportunities*. Hershey, USA: IGI Global.

Van Leeuwen, T., & Kress, G. (2001). *Multimodal Discourse: The Modes and Media of Contemporary Communication*. London: Arnold.

Van Oostendorp, M., & Van Riemsdijk, H. (2015). *Representing Structure in Phonology and Syntax*. Berlin: De Gruyter Inc.

Verbeek, D. C. (2010, August). *Teaching reading for meaning? A case study of the initial teaching of reading in a mainstream South African school*. Pietermaritzburg: University of KwaZulu-Natal.

Victori, M., & Lockhart, W. (1995). Enhancing Metacognition in Self-directed Language Learning. *System* (pp. 223-234).

Vosloo, J. *A sport management programme for educator training in accordance with the diverse needs of South African schools*. (2014). Potchefstroom: North-West University.

Vygotsky, L. S. (1978). *Mind in society: Development of higher psychological processes*. Harvard Press

Vygotsky, L. (1981). The genesis of higher mental functions. In J. Wertsch (Ed.), *The concept of activity in Soviet psychology* (pp. 144-188). Armonk, NY: Sharpe.

Wade, S. E. (1990). Using Think-Alouds to Assess Comprehension. *The Reading Teacher* (pp. 44-451).

Wang, Y. H. (2016). Reading Strategy Use and Comprehension Performance of More Successful and Less Successful Readers: A Think-aloud Study. *Educational Sciences: Theory and Practice* (pp. 1789-1813).

Waterford.org. (2019). *Why Multisensory Learning is an Effective Strategy for Teaching Students How To Read*. Retrieved from Waterford.org:

<https://www.waterford.org/education/why-multisensory-learning-is-an-effective-strategy-for-teaching-students-how-to-read/>

Watkins, P. (2018). *Teaching and Developing Reading Skills: Handbooks for Language Teachers*. Cambridge: Cambridge University Press.

Weaver, C. (2002). *Reading Process and Practice: From Socio-psycholinguistics to Whole Language*. Portsmouth: Heinemann.

- Webb, S., Massey, D., Goggans, M., & Flajole, K. (2019). Thirty-Five Years of the Gradual Release of Responsibility: Scaffolding Toward Complex and Responsive Teaching. *The Reading Teacher* (pp. 75-83).
- Wesche, M., & Paribakht, T. (1996). Assessing second language vocabulary knowledge: Depth versus breadth. *Canadian Modern Language Review* (pp.13-40).
- White, A. (2016). Using Digital Think-Alouds to Build Comprehension of Online Informational Texts. *The Reading Teacher* (pp. 421-425).
- Wigfield, A., Gladstone, J. R., & Turci, L. (2016). Beyond Cognition: Reading Motivation and Reading Comprehension. *Child Development Perspectives* (pp.1-6).
- Williamson, S. N. (2007). Development of a self-rating scale of self-directed learning. *Nurse Researcher* (pp. 66-83).
- Willingham, D. T. (2017). *The Reading Mind: A Cognitive Approach to Understanding How the Mind Reads*. San Francisco: Josey Bass.
- Wilsenach, C. (2015). Receptive vocabulary and early literacy skills in emergent bilingual Northern Sotho-English children. *Reading & Writing*, (pp. 1-11).
- Winne, P. H., & Hadwin, A. F. (2010). Self-regulated Learning and Socio-cognitive Theory. *International Encyclopaedia of Education* (pp. 503-508).
- Wood, D., Bruner, J., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry* (pp. 89-100).
- Wood, F. (1975). Self-direction and achievement: Are they related? *The High School Journal* (pp. 161-169).
- Woolley, G. (2011). *Reading Comprehension*. Retrieved July 8, 2017, from <http://link.springer.com/10.1007/978-94-007-1174-7>
- Yaseen, I. K. (2018). The Effect of Using the Gradual Release of Responsibility Teaching Model on Iraqi Non-EFL College Students' Achievement in Reading Comprehension. *International Journal of Management and Applied Science* (pp. 100-103).

Zammit, K. (2019). Pedagogy, Curriculum and Assessment: Multimodal Practices That Engage Students with and in Learning. In H. de Silva Joyce, & S. Feez, *Multimodality Across Classrooms: Learning About and Through Different Modalities* (pp. 49-65). New York: Routledge.

Zimmerman, B. (2002). Becoming a self-regulated learner: An overview. *Theory Into Practice* (pp. 64-70).

Zimmerman, L. (2014). Lessons learnt: Observation of Grade 4 reading comprehension teaching in South African schools across the Progress in International Reading Literacy Study (PIRLS) 2006 achievement spectrum. *Reading & Writing*, (pp. 1-9).

Zuniga, F. (2017). On the Morphosyntax of Indigenous Languages in America. *Journal of American Linguistics* (pp. 111-139).

Zwiers, J. (2010). *Building Reading Comprehension Habits in Grades 6-12: A Toolkit of Classroom Activities*. USA: International Reading Association.

ANNEXURES

Annexure A: Ethics Approval Letter



Private Bag X1290, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Fax: 018 299-4910
Web: <http://www.nwu.ac.za>

Senate Committee for Research Ethics
Tel: 018 299-4849
Email: nkosinathi.machine@nwu.ac.za

ETHICS APPROVAL LETTER OF STUDY

Based on approval by the Faculty of Education Research Ethics Committee (EduREC) on 25 November 2021, this committee hereby **approves** your study as indicated below. This implies that the North-West University Senate Committee for Research Ethics (NWU-SCRE) grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Study title: Multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase to improve comprehension skills																
Study Leader/Supervisor (Principal Investigator)/Researcher: Prof JAK Olivier																
Student / Team: LD Solomons (MEd student – 28531744), Dr W van der Merwe																
Ethics number:	N	W	U	-	0	1	0	3	0	-	2	1	-	A	2	
	Institution				Study Number						Year			Status		
	<u>Status:</u> S = Submission, R = Re-Submission, P = Provisional Authorisation; A = Authorisation															
Application Type:	Single study															
Commencement date:	25 November 2021					Risk:	Low									
Expiry date:	25 November 2022															
Approval of the study is initially provided for a year, after which continuation of the study is dependent on receipt and review of the annual (or as otherwise stipulated) monitoring report and the concomitant issuing of a letter of continuation.																

Special in process conditions of the research for approval (if applicable):

<p>General conditions:</p> <p>While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, the following general terms and conditions will apply:</p> <ul style="list-style-type: none">• The study leader/supervisor/principal investigator/researcher must report in the prescribed format to the EduREC:<ul style="list-style-type: none">- annually (or as otherwise requested) on the monitoring of the study, whereby a letter of continuation will be provided, and upon completion of the study; and- without any delay in case of any adverse event or incident (or any matter that interrupts sound ethical principles) during the course of the study.• The approval applies strictly to the proposal as stipulated in the application form. Should any amendments to the proposal be deemed necessary during the course of the study, the study leader/researcher must apply for approval of these amendments at the EduREC, prior to implementation. Should there be any deviations from the study proposal without the necessary approval of such amendments, the ethics approval is immediately and automatically forfeited.• Annually a number of studies may be randomly selected for an external audit.• The date of approval indicates the first date that the study may be started.• In the interest of ethical responsibility, the NWU-SCRC and EduREC reserves the right to:<ul style="list-style-type: none">- request access to any information or data at any time during the course or after completion of the study;
--



Directorate: Research

meshack.kanzi@westerncape.gov.za
Tel: +27 021 467 2350
Fax: 086 590 2282
Private Bag x9114, Cape Town, 8000
wced.wcape.gov.za

REFERENCE: 20220224-120

ENQUIRIES: Mr M Kanzi

Mrs Lorna Solomons
8 Myer Road
Retreat
7945

Dear Mrs Lorna Solomons,

RESEARCH PROPOSAL: MULTIMODAL MODELLING OF SELF-DIRECTED READING COMPREHENSION STRATEGIES IN THE FOUNDATION PHASE TO IMPROVE COMPREHENSION SKILLS.

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 **24 February 2022 till 31 May 2022.**
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 Mr M Kanzi 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,
Meshack Kanzi
Directorate: Research
DATE: 24 February 2022

A handwritten signature in black ink, appearing to be 'Meshack Kanzi', written over a horizontal line.



Directorate: Research

meshack.kanzi@westerncape.gov.za
Tel: +27 021 467 2350
Fax: 086 590 2282
Private Bag x9114, Cape Town, 8000
wced.wcape.gov.za

REFERENCE: 20220224-120

ENQUIRIES: Mr M Kanzi

Mrs Lorna Solomons
8 Myer Road
Retreat
7945

Dear Mrs Lorna Solomons,

RESEARCH PROPOSAL: MULTIMODAL MODELLING OF SELF-DIRECTED READING COMPREHENSION STRATEGIES IN THE FOUNDATION PHASE TO IMPROVE COMPREHENSION SKILLS.

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 **1 June 2022 till 31 July 2022.**
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 Mr M Kanzi 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:

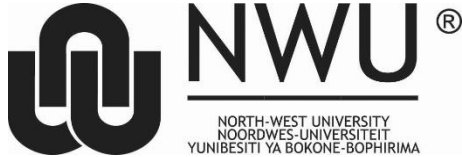
**The Director: Research Services
Western Cape Education Department
Private Bag X9114
CAPE TOWN
8000**

We wish you success in your research.

Kind regards,
Meshack Kanzi
Directorate: Research
DATE: 12 May 2022

A handwritten signature in black ink, appearing to be 'MK' or similar initials, followed by a horizontal line.

Annexure D: School Details Request



(Recipient name)
(Recipient address)
(Recipient address)
(Recipient address)

Private Bag X6001, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Web: <http://www.nwu.ac.za>

Faculty of Education

Research Unit Self-Directed Learning

Tel: 018 285 2215
Email: Jako.Olivier@nwu.ac.za

5 April 2022

SCHOOL DETAILS REQUEST

My name is Lorna Solomons, and I am a master's student at North West University. I have received approval from the WCED to do research with a selected group of Foundation Phase teachers. I request you kindly nominate five schools, within your district, to participate in this research project. The nominated schools will need to have access to the internet, as the research "training" sessions will take place via Zoom.

The study will include either online or email focus group interview with advisors specialising in language teaching. The research project itself will include online training sessions with Foundation Phase teachers, which would include demonstrations of how to teach reading comprehension strategies using a multimodal modelling approach and to guide teachers in supporting their learners to become self-directed in their learning.

The details of the research are as follows:

TITLE OF THE RESEARCH PROJECT:

Multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase to improve comprehension skills

ETHICS APPLICATION NUMBER:

NWU-01030-21-A2

PROJECT SUPERVISOR: Professor JAK Olivier

CO-SUPERVISOR: Dr Wanda van der Merwe

ADDRESS: Faculty of Education, Internal Box 575, North-West University, Private Bag X2046, Mmabatho, 2735

CONTACT NUMBER: 018 285 2215

MEMBER OF PROJECT TEAM MEd-Student: Lorna Solomons

ADDRESS: 8 Myer Road, Retreat, Cape Town

CONTACT NUMBER: [REDACTED]

FACULTY OF EDUCATION RESEARCH ETHICS COMMITTEE

Contact person: Ms Erna Greyling, E-mail: Erna.Greyling@nwu.ac.za, Tel. (018) 299 4656

This study has been approved by the Research Ethics Committee of the Faculty of Education of the North-West University and will be conducted according to the ethical guidelines of this committee. Permission was also obtained from the Western Cape Provincial Department of Basic Education.

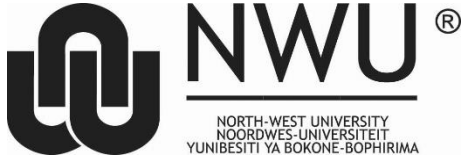
Your assistance and prompt response to this request will be greatly appreciated.

Yours sincerely

L. Solomons

LD Solomons

Annexure E: Permission Letter: School Principal



Private Bag X6001, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Web: <http://www.nwu.ac.za>

Faculty of Education

Research Unit Self-Directed Learning

Tel: 018 285 2215
Email: Jako.Olivier@nwu.ac.za

(Recipient name)
(Recipient address)
(Recipient address)
(Recipient address)

28 April 2021

PERMISSION LETTER: SCHOOL PRINCIPAL

I herewith wish to request your permission for your Foundation Phase teachers to participate in my research project for my master's in education. The study will include online training sessions with teachers, which would include demonstrations of how to teach reading comprehension strategies using a multimodal modelling approach and to guide teachers in supporting their learners to become self-directed in their learning. I hope I can record the sessions as part of my research and to analyse the data. I will request either online interviews or interviews via email, whichever the teachers are most comfortable with. In my research study, I will use pseudonyms to ensure confidentiality and anonymity of the participants and the school. The recordings are solely for the research purpose of this study. Prior to granting permission, please acquaint yourself with the information below.

The details of the research are as follows:

TITLE OF THE RESEARCH PROJECT:

Multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase to improve comprehension skills

ETHICS APPLICATION NUMBER

NWU-01030-21-S2

PROJECT SUPERVISOR: Prof JAK Olivier

CO-SUPERVISOR: Dr W van der Merwe

ADDRESS: Faculty of Education, Internal Box 575, North-West University, Private Bag X2046, Mmabatho, 2735

CONTACT NUMBER: 018 285 2215

MEMBER OF PROJECT TEAM MEd-Student: Lorna Solomons

ADDRESS: 8 Myer Road, Retreat

CONTACT NUMBER: [REDACTED]

FACULTY OF EDUCATION RESEARCH ETHICS COMMITTEE

Contact person: Ms Erna Greyling, E-mail: Erna.Greyling@nwu.ac.za, Tel. (018) 299 4656

This study has been approved by the Research Ethics Committee of the Faculty of Education of the North-West University and will be conducted according to the ethical guidelines of this committee. Permission was also obtained from the provincial Department of Basic Education.

What is this research about?

The aim of this research is:

- For Foundation Phase teachers to explore whether modelling, teaching, and implementing the reading comprehension strategies is beneficial to improve the learners' reading comprehension and comprehension.
- For Foundation Phase teachers to support learners become self-directed in utilising the comprehension strategies

Participants

- Foundation Phase Teachers who are willing to take part and who provides informed consent for participation.

What is expected of the participants?

It is expected of the Foundation Phase teachers and participants, to actively participate during online sessions. To ask questions for clarity or if they are unsure of the being information shared.

Benefits to the participants

The researcher will demonstrate to participants how to teach reading comprehension strategies using multimodal modelling. To improve the teacher's ability to provide guidance and support to learners to become self-directed in their learning. The researcher will attempt to improve the teachers understanding of how and why reading comprehension and comprehension strategies are taught.

Risks involved for participants

No risks are envisaged.

Confidentiality and protection of identity

All the participants' information will be kept confidential as it will only be known to myself, my supervisor and co-supervisor.

Dissemination of findings

The researcher will share her findings after her document has been submitted and approved.

If you have any further questions or enquiries regarding your participation in this research, please contact the researchers for more information.

Yours sincerely

L. Solomons

LD Solomons (Mrs)

DECLARATION BY PRINCIPAL:

By signing below, I agree to give permission for the research to take place with the identified participants in the study entitled:

Multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase to improve comprehension skills

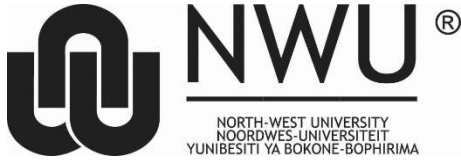
I declare that:

- I have read this information and consent form and understand what is expected of the participants in the research.
- I have had a chance to ask questions to the researcher and all my questions have been adequately answered.
- I understand that taking part in this study is voluntary and participants will not be pressurised to take part.
- Participants may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- Participants may be asked to leave the research process before it is completed, if the researcher feels it is in their best interests, or if they do not follow the research procedures, as agreed to.

Signed at (place) _____ on (date) ____/____/20____

Signature of School Principal

Annexure F: Goodwill Permission: School Governing Body



Private Bag X6001, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Web: <http://www.nwu.ac.za>

Faculty of Education

Research Unit Self-Directed Learning

Tel: 018 285 2215
Email: Jako.Olivier@nwu.ac.za

(Recipient name)
(Recipient address)
(Recipient address)
(Recipient address)

28 April 2021

GOODWILL PERMISSION: SCHOOL GOVERNING BODY

I herewith wish to request your permission for Foundation Phase teachers to participate in this research, which involves online training sessions. Prior to granting permission, please acquaint yourself with the information below.

The details of the research are as follows:

TITLE OF THE RESEARCH PROJECT:

Multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase to improve comprehension skills.

ETHICS APPLICATION NUMBER

NWU-01030-21-S2

PROJECT SUPERVISOR: Professor JAK Olivier

CO-SUPERVISOR: Dr Wanda van der Merwe

ADDRESS: Faculty of Education, Internal Box 575, North-West University, Private Bag X2046, Mmabatho, 2735

CONTACT NUMBER: 018 285 2215

MEMBER OF PROJECT TEAM MEd-Student: Lorna Solomons

ADDRESS: 8 Myer Road, Retreat, Cape Town

CONTACT NUMBER: [REDACTED]

FACULTY OF EDUCATION RESEARCH ETHICS COMMITTEE

Contact person: Ms Erna Greyling, E-mail: Erna.Greyling@nwu.ac.za, Tel. (018) 299 4656

This study has been approved by the Research Ethics Committee of the Faculty of Education of the North-West University and will be conducted according to the ethical guidelines of this committee. Permission was also obtained from the provincial Department of Basic Education.

What is this research about?

The aims of this research are:

- to explore whether modelling, teaching, and implementing the reading comprehension strategies in the Foundation Phase is beneficial to improve learners' reading comprehension and comprehension.
- to support learners become self-directed in utilising the comprehension strategies

Participants

- Foundation Phase Teachers

What is expected of the participants?

To actively participate during online sessions. Ask questions for clarity or if you are unsure of information shared; Possibly share own experiences of what they are currently doing in class.

Benefits to you as participant

Provide better support to learners in your class. Improve understanding of how and why reading comprehension and comprehension are taught.

Confidentiality and protection of identity

All your information will be kept confidential as it will only be known to myself and my supervisor.

Dissemination of findings

The researcher will share her findings after her document has been submitted and approved.

If you have any further questions or enquiries regarding your participation in this research, please contact the researchers for more information.

Yours sincerely

L. Solomons

LD Solomons (Mrs)

DECLARATION BY SGB CHAIRPERSON/RELEVANT RESPONSIBLE PERSON:

By signing below, I agree to give permission for the research to take place with the identified participants in the study entitled:

Multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase to improve comprehension skills

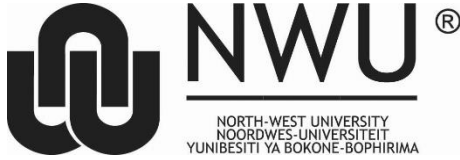
I declare that:

- I have read this information and consent form and understand what is expected of the participants in the research.
- I have had a chance to ask questions to the researcher and all my questions have been adequately answered.
- I understand that taking part in this study is voluntary and participants will not be pressurised to take part.
- Participants may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- Participants may be asked to leave the research process before it is completed, if the researcher feels it is in their best interests, or if they do not follow the research procedures, as agreed to.

Signed at (place) _____ on (date) ____ / ____ /20 ____

Signature of SGB Chairperson/Relevant responsible person

Annexure G: Participant information and Consent Form



Private Bag X6001, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Web: <http://www.nwu.ac.za>

Faculty of Education

Research Unit Self-Directed Learning

Tel: 018 285 2215
Email: Jako.Olivier@nwu.ac.za

Name: _____

School: _____

Address: _____

6 May 2022

PARTICIPANT INFORMATION AND CONSENT FORM

I herewith wish to request your consent to participate in this research, which involves the Foundation Phase teachers. The study will include online training sessions with teachers, which I am hoping I am able to record as part of my research and to analyse the data. I will request either online interviews or interviews via email, whichever the teachers are most comfortable with. In my research study, I will use pseudonyms to ensure confidentiality and anonymity of the participants and the school. The recordings are solely for the research purpose of this study. Before you give consent, please acquaint yourself with the information below.

The details of the research are as follows:

TITLE OF THE RESEARCH PROJECT:

Multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase to improve comprehension skills

ETHICS APPLICATION NUMBER

NWU-01030-21-S2

PROJECT SUPERVISOR: Professor JAK Olivier

CO-SUPERVISOR: Dr Wanda van der Merwe

ADDRESS: Faculty of Education, Internal Box 575, North-West University, Private Bag X2046, Mmabatho, 2735

CONTACT NUMBER: 018 285 2215

MEMBER OF PROJECT TEAM MEd-Student: Lorna Solomons

ADDRESS: 8 Myer Road, Retreat

CONTACT NUMBER: [REDACTED]

FACULTY OF EDUCATION RESEARCH ETHICS COMMITTEE

Contact person: Ms Erna Greyling, E-mail: Erna.Greyling@nwu.ac.za, Tel. (018) 299 4656

This study has been approved by the Research Ethics Committee of the Faculty of Education of the North-West University and will be conducted according to the ethical guidelines of this

committee. Permission was also asked from the provincial Department of Basic Education/other relevant body (please describe) as well as the school principal (if relevant).

What is this research about?

The aim of this research is:

- For Foundation Phase teachers to explore whether modelling, teaching, and implementing the reading comprehension strategies is beneficial to improve the learners' reading comprehension and comprehension.
- For Foundation Phase teachers to support learners become self-directed in utilising the comprehension strategies

Participants

- Foundation Phase Teachers

What is expected of the participants?

To actively participate during online sessions. Ask questions for clarity or if you are unsure of information shared; Possibly share own experiences of what they are currently doing in class.

Benefits to you as participant

Provide better support to learners in your class. Improve understanding of how and why reading comprehension and comprehension are taught.

Confidentiality and protection of identity

All your information will be kept confidential as it will only be known to myself and my supervisor.

Dissemination of findings

The researcher will share her findings after her document has been submitted and approved.

If you have any further questions or enquiries regarding your participation in this research, please contact the researchers for more information.

Yours sincerely

L. Solomons

LD Solomons (Mrs)
(Researcher)

DECLARATION BY PARTICIPANT:

By signing below, I agree to take part in a research study entitled:

Multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase to improve comprehension skills

I declare that:

- I have read this information and consent form and understand what is expected of me in the research.
- I have had a chance to ask questions to the researcher and all my questions have been adequately answered.
- I understand that taking part in this study is voluntary and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the research process before it has finished, if the researcher feels it is in my best interests, or if I do not follow the research procedures, as agreed to.

Signed at (place) _____ on (date) ____/____/20____

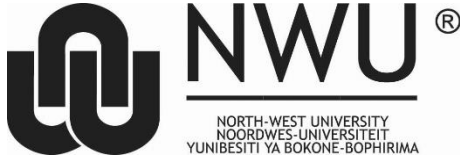
Signature of participant

L. Solomons

Researcher

Email Address: _____

Annexure H: Advisors Information and Consent Form



Private Bag X6001, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Web: <http://www.nwu.ac.za>

Faculty of Education

Research Unit Self-Directed Learning

Tel: 018 285 2215
Email: Jako.Olivier@nwu.ac.za

(Recipient name)
(Recipient address)
(Recipient address)
(Recipient address)

3 April 2022

ADVISORS INFORMATION AND CONSENT FORM

I herewith wish to request your consent to participate my research project for my master's in education. The study will include either online or email focus group interview with advisors specialising in language teaching. The research project itself will include online training sessions with Foundation Phase teachers, which would include demonstrations of how to teach reading comprehension strategies using a multimodal modelling approach and to guide teachers in supporting their learners to become self-directed in their learning. I hope to record the sessions as part of my research and to analyse the data. I will request either online interviews or interviews via email, whichever the teachers are most comfortable with. In my research study, I will use pseudonyms to ensure confidentiality and anonymity of the participants and the school. The recordings are solely for the research purpose of this study. Prior to granting permission, please acquaint yourself with the information below.

The details of the research are as follows:

TITLE OF THE RESEARCH PROJECT:

Multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase to improve comprehension skills

ETHICS APPLICATION NUMBER

NWU-01030-21-S2

PROJECT SUPERVISOR: Professor JAK Olivier

CO-SUPERVISOR: Dr Wanda van der Merwe

ADDRESS: Faculty of Education, Internal Box 575, North-West University, Private Bag X2046, Mmabatho, 2735

CONTACT NUMBER: 018 285 2215

MEMBER OF PROJECT TEAM MEd-Student: Lorna Solomons

ADDRESS: 8 Myer Road, Retreat, Cape Town

CONTACT NUMBER: [REDACTED]

FACULTY OF EDUCATION RESEARCH ETHICS COMMITTEE

Contact person: Ms Erna Greyling, E-mail: Erna.Greyling@nwu.ac.za, Tel. (018) 299 4656

This study has been approved by the Research Ethics Committee of the Faculty of Education of the North-West University and will be conducted according to the ethical guidelines of this committee. Permission was also asked from the provincial Department of Basic Education.

What is this research about?

The aim of this research is:

- For Foundation Phase teachers to explore whether modelling, teaching, and implementing the reading comprehension strategies is beneficial to improve the learners' reading comprehension and comprehension.
- For Foundation Phase teachers to support learners become self-directed in utilising the comprehension strategies

Participants

- Experts in the field of Foundation Phase Language teaching, Learning Support Advisors, Foundation Phase Advisors

What is expected of you as participant?

It is expected of the advisors to actively participate during online discussion session or semi-structured interviews via email. Ask questions for clarity or if you are unsure of information shared. Share your expertise and observations of the teaching of reading comprehension strategies.

Benefits to you as participant

Gain information from other advisors. Disseminate information gained, without using names, to Foundation Phase teachers provide better support to learners in their class. Improve understanding of how and why reading comprehension and comprehension are taught.

Risks involved for participants

No risks are envisaged.

Confidentiality and protection of identity

All your information will be kept confidential as it will only be known to myself, my supervisor and co-supervisor.

Dissemination of findings

The researcher will share her findings after her document has been submitted and approved.

If you have any further questions or enquiries regarding your participation in this research, please contact the researchers for more information.

Yours sincerely

L. Solomons

LD Solomons (Mrs)

DECLARATION BY PARTICIPANT:

By signing below, I agree to take part in a research study entitled:

Multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase to improve comprehension skills

I declare that:

- I have read this information and consent form and understand what is expected of me in the research.
- I have had a chance to ask questions to the researcher and all my questions have been adequately answered.
- I understand that taking part in this study is voluntary and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the research process before it has finished, if the researcher feels it is in my best interests, or if I do not follow the research procedures, as agreed to.

Signed at (place) _____ on (date) ____ / ____ /20 ____

Signature of participant

L. Solomons
Researcher

Annexure I: Teacher questionnaire

Lorna Solomons

Student No. 2851744

30 April 2021

Teacher questionnaire

1. Name and Surname:

2. School:

3. District:

4. Do you recall how you were taught comprehension at school? Please explain.

5. Were textbooks or worksheets given to you? How were they used?

6. How was vocabulary and spelling taught? Explain.

7. How was reading comprehension presented to you at the university or college you attended?

8. When you started your teaching career, how did you teach comprehension?

9. How has your approach to teaching comprehension changed since you started teaching? If so, how has it changed?

10. Describe how you think teachers lack training in teaching reading comprehension? Why?

11. How do you take all your learners' needs into consideration during comprehension lessons?

12. Do you take your learners' background and previous knowledge into account when preparing for comprehension lessons? Please explain.

13. How do you fan the flames of getting your learners to read with understanding and to question what they are reading?

14. How do you or how would you get your learners to begin to think critically?

15. Please explain how you do or would use multimodal modelling to teach reading comprehension strategies.

16. How would you incorporate technology in teaching reading comprehension skills?

17. How do or would you support your learners to become independent and self-directed in their learning?

18. How would you encourage and incorporate self-directed learning in your daily lessons?

Annexure J: Springer Nature License

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Sep 26, 2022

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Appendix 1 — Acknowledgements:

Annexure K:

Discussion points for Focus group

1. So, when you were teaching, how did you teach the comprehension strategies for your learner's?
2. What do you think are the most important comprehension strategies that need to be taught in the foundation phase?
3. How do you how do you get learners to sort of read between the lines?
4. When observing teachers, have you had the opportunity to see how they teach comprehension?
5. So, have you heard of five W H (5W/H)? or in Afrikaans the 4W/2H?
6. Do you do you think the pandemic has affected what is currently happening to our learners in terms of reading and comprehension?
7. So how important do you think teaching comprehension strategies are to the children in the foundation phase?
8. Do you think newer teachers that are that are entering the system that they are being taught these strategies at the institutions?
9. Have you heard of self-directed learning? What do you understand by it?
10. So how do you think you can support teachers to teach the learners to become self-directed?
11. What do you understand by multimodal modelling? (You cater for all the different types of learning styles in your class)
12. So, supporting teachers, you know, just sort of getting them into that next level that you're speaking about, how do you think that could be done?
13. Are there any other remarks or comments that you would like to add?

Annexure L: Turnitin Report

MEd

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Annexure M: Language Editing Declaration



Editing certificate

I, Menitza Botha, hereby declare that the document entitled 'Multimodal modelling of self-directed reading comprehension strategies in the Foundation Phase to improve comprehension skills' has undergone a full and thorough language edit in accordance with the Professional Editors' Guild of South Africa's guidelines for academic editing.

Technical matters such as spelling, grammar and punctuation were attended to in addition to matters of style and clarity. No changes that could potentially misrepresent the abilities of the author were made, i.e. changes to structure, organisation and content.

The style of the in-text citations and the reference list entries was checked for consistency. That being said, it remains the responsibility of the author to ensure the academic integrity of their work – in this regard, the editor may neither check for plagiarism nor rephrase any suspected instances of plagiarism.

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Please see the editorial style guide for a list of stylistic changes. These changes were made by the editor and the student should not be penalised in case of disagreement about said changes.

Yours faithfully

Menitza Botha

22 November 2022