AUTHOR:
Ms Pralene Schmidt[1]
Prof Janet Condy[1]
Dr Chantyclaire Tiba[1]

AFFILIATION:
[1]Cape Peninsula University of Technology

DOI: http://dx.doi.org/10.18820/2519593X/pie.v39.i2.19

e-ISSN 2519-593X
Perspectives in Education
2021 39(2): 267-282

PUBLISHED:
11 June 2021

RECEIVED:
05 June 2020

ACCEPTED:
22 July 2020

TEACHING HIGHER-ORDER COMPREHENSION STRATEGIES TO A GRADE 2 LEARNER WHO STRUGGLED TO READ FOR MEANING: A CASE STUDY

ABSTRACT

Higher-order comprehension skills are necessary to understand a text, yet many South African learners have not been taught these skills. The aim of this study is to explicitly teach higher-order reading comprehension strategies to a Grade 2 learner who could not read for meaning. This study is based upon Vygotsky's Social Constructivist theory. Data were collected through pre- and post-tests, an intervention programme, interviews and classroom observations. The findings suggest that the learner acquired higher order thinking skills after being taught reading comprehension strategies. The teacher guided, paced and modelled the learner's reading progress, creating a safe learning environment. The results suggest that teaching higher-order comprehension strategies and creating safe learning environments had an impact on developing the Grade 2 learner's higher-order thinking skills.

Keywords: *Explicit teaching; higher order thinking skills; inferences; reading comprehension; reading for meaning; social constructivist theory.*

1. INTRODUCTION

The ability to read for meaning is important since, according to Klapwijk,

> the average person starts reading the minute they open their eyes in the morning: checking for messages on mobile phones, reading labels on breakfast food containers, reading and signing children's school notices, scanning newspaper headlines on the way to work, reading road signs and subway notices (2015: 1).

Yet, globally (World Bank, 2018) and in South Africa, most learners lack the higher-order comprehension skills that enable them to read for meaning. Acknowledging the reading crisis in South Africa, President Cyril Ramaphosa,

in his 2019 and 2020 State of the Nation Address, stated government's commitment to improve reading comprehension in the early grades.

In the recent Progress in International Reading Literacy Study (PIRLS) assessments conducted in 2016, South Africa scored 320 points which is below the PIRLS centre point of 500. This score indicates that Grade 4 South African learners who did not reach the lowest benchmark (below 400 points), cannot read for meaning nor retrieve basic information from a text to answer simple questions (Howie *et al.,* 2017). The findings from Howie *et al.* (2017: 11) suggest that on the PIRLS scale: "South Africa may be six years behind the top performing countries … about 78% of South African Grade 4 learners do not have basic reading skills by the end of the Grade 4 school year". Extensive tests conducted by PIRLS prove conclusively that South African primary school learners' text comprehension is extremely poor.

The annual Western Cape Systemic Tests show similarly dire results. These tests are conducted to monitor the performance of Western Cape Education Department (WCED) learners in language and Mathematics. These tests allow the provincial department to identify specific areas where intervention is required to improve learners' abilities. The department's targeted efforts to improve these scores in early grades will ultimately lead to better pass rates throughout the education system and in the national senior certificate examinations (WCED, 2020). The Systemic Tests, which have a pass mark of 50%, take place in Grades 3, 6 and 9. Table 1 shows the provincial pass results for language from 2015 to 2019.

Table 1 Provincial Pass Results for Language (2015–2019)

	2015	2016	2017	2018	2019
Grade 3 Pass %	42.4	41.6	46.6	45.8	44.9
Grade 6 Pass %	36.8	40.1	38.7	38.5	42.8
Grade 9 Pass %	53.0	53.1	53.0	52.6	53.6

Based on Table 1, although an overall improvement is evident from 2015, it clearly indicates that learners in Grade 3 and 6 are underachieving and falling short of the 50% accepted pass rate. In addition, the National Education Evaluation and Development Unit (NEEDU), in a fairly dated document, reported that "while South African teachers did relatively well on questions requiring the simple retrieval of information explicitly stated in the test (75,1%), scores dropped dramatically as soon as the higher cognitive functions of inference (55,2%), interpretation (36,6%) and evaluation (39,7%) were invoked" (Taylor *et al.,* 2012: 26). The report found that many educators were themselves unable to comprehend texts at higher evaluative levels.

In light of these national and international results, the current study conducted a small research project using pre- and post-tests, a four-week intervention programme, interviews and an observation schedule. The aim was to explicitly teach higher-order comprehension strategies to a Grade 2 learner who struggled to read for meaning. The researcher asked the following two research questions:

i. What higher-order comprehension strategies were used to teach a Grade 2 learner who struggled to read for meaning; and

ii. How did the learning environment create an opportunity for the Grade 2 learner to read for meaning?

Existing evidence suggests that when higher-order comprehension skills are explicitly taught to learners, comprehension is increased (Beck & Condy, 2017; Cekiso, 2012). Within the South African educational context, this study sought to explicitly teach higher-order comprehension strategies and create classroom environments that may increase a Grade 2 learner's higher-order comprehension skills.

2. LITERATURE REVIEW

In this literature review, the following three concepts pertinent to this study are discussed: reading comprehension and explicit teaching, inference making within the CAPS requirements and encouraging constructive classroom environments.

2.1 Reading comprehension and explicit teaching

Comprehension is key to understanding all subjects across the curriculum. McNamara, Ozuru and Floyd (2011) claim that comprehension requires the reader to metacognitively combine the meanings of individual words into a coherent sentence and then to assimilate multiple sentences to create an overall understanding of the text. From this definition, it is noteworthy that teachers need to teach learners metacognitive strategies necessary to read a text meaningfully. This intention is linked to Vygotsky's social constructivist theory (1978 as quoted in McLeod 2014; Cambourne, 2004) which stresses the importance of social interaction in enhancing a learner's understanding of subject matter. The teacher (More Knowledgeable Other) and learner have a role to play because they both collaborate to make meaning of a text. Swärd (2013) goes on to state that collaboration between teachers and their learners, enables learners to use metacognitive thinking and to reach awareness about their learning process.

A considerable number of studies suggest that learners develop higher-order thinking skills when they are explicitly taught reading comprehension strategies (Beck & Condy, 2017; Cekiso, 2012; Rupley, Blair & Nichols, 2009) and apply these to reading texts in a meaningful way. In explicit teaching, teachers give students rules to practise and students make conscious efforts to learn (Talley & Hui-ling, 2014). Explicit teaching, according to Cambourne refers to

> the practice of deliberately demonstrating and bringing learners' conscious awareness to those invisible processes, understandings, knowledge and skills they need to acquire if they are to become effective readers (2004: 33).

Rupley *et al.* (2009: 125) assert that "struggling readers are more likely to learn essential reading skills and strategies if they are taught explicitly". According to Cekiso (2012), without being taught explicit reading comprehension strategies, learners will seldom be able to find meaning in a text in any sustained or coherent manner.

Studies conducted in South Africa, such as that by Beck and Condy (2017), reported that some teachers are reluctant to, or do not explicitly, teach reading comprehension because the Curriculum and Assessment Policy Statement (CAPS) does not provide teachers with adequate knowledge concerning pedagogical approaches for teaching reading comprehension strategies. The NEEDU report states that teachers often lack the knowledge to impart reading skills themselves. Klapwijk and Van der Walt explain that

> … despite the existence of research that shows the benefits of reading instruction, it seems that teachers seldom teach reading strategies explicitly in South African schools, thereby depriving learners of the strategies they need to think about the process of meaning making when they encounter texts (2011: 27).

Muijselaar *et al.* (2017) concur that comprehension plays an important role in the reading process but that learners are seldom taught such skills.

2.2 Inference making within the CAPS requirements

Inference making is one of the skills needed for higher order thinking and is crucial for comprehension (Currie & Cain, 2015). Bos *et al.* (2016) support this notion as their findings suggest that teaching learners inference making improved their comprehension skills. After teaching inference making, learners in Bos *et al*.'s study were motivated and began to enjoy reading. Kispal (2008) defines "inference" as the ability to use two or more pieces of information from a text in order to arrive at a third, implicit piece of information. According to Lee (2013), drawing inferences from a text requires the reader to make a connection to their experiences and world knowledge. These definitions imply the need for teachers to activate learners' prior knowledge when teaching inferences in order for learners to make meaning of a text since information is not (always) explicitly stated. An example of "inference can be as simple as associating the pronoun 'he' with a previously mentioned male person. Or, it can be as complex as understanding a subtle implicit message conveyed through the choice of particular vocabulary by the writer and drawing on the reader's own background knowledge" (Kispal, 2008: 2). Existing studies suggests that poor reading comprehension often occurs because: (i) inference skills have not been systematically taught to learners and (ii) learners are introduced to content of which they have no prior knowledge (Lee, 2013; Hara & Tappe, 2016).

In this current study, the primary researcher taught reading explicitly using the following four strategies: "My Turn – Your Turn", "Think Aloud", "Anticipation Guide" and "Magic Square". The "My Turn – Your Turn" strategy involved the researcher sharing an aspect of what was read, for example "this reminds me of the time when…" or "how do you think the character is feeling…?". The learner then shared something in return. This developed predictive, reasoning and thinking skills by posing higher-order questions. This type of questioning helped the learner engage in active thinking during reading to gain a deeper meaning of the reading passage. This procedure focused on reading as a thinking process. The intention was to teach learners to make predictions throughout reading. The "Think Aloud" was an activity that allowed the learner to make predictions through open-ended questioning and reading. According to McLaughlin (2006: 223), the "Think Aloud" process provides a "… model for active thinking during the reading process" when teaching reading strategies such as: "previewing, visualizing, monitoring, self-questioning, making connections, knowing how words work, summarising and evaluating". The "Anticipation Guide" was used as an activity, to activate the learner's prior knowledge, as she responded to various statements relating to texts and her own experiences. For example, the learner had to provide her own opinion on why she "agrees" or "disagrees" with the statements from text that links to her experiences. "Anticipation Guides" was used by a teacher, as she engaged the learners in the exploration of new information by challenging them to think critically about what they knew or thought they knew about a topic (McKenna, 2002; Duffelmeyer, 1994). The "Magic Square" was an activity whereby the learner had to match definitions or words from one column with those in the other and find out why the square was "magic". The learner matched the numbers from the one column to letters of the other column and wrote the letters in blocks of the corresponding letter. When you add the numbers across, down or diagonally, they always add to the same number. This activity required a great deal of concentration and logical thinking, posing a

considerable challenge to the brain (Danesi, 2015). This once again developed justification and active thinking skills.

The CAPS document indicates that the literacy skills learners in the Foundation Phase (Grades R–3) should acquire include:

> listening and speaking, reading and phonics, and writing and handwriting, while thinking and reasoning, and language structure and use are underlying skills (DBE, 2011: 6).

To acquire these skills, the Survival Guide to the CAPS for the Foundation Phase (Longman, 2020) indicates that teachers should ask higher order thinking questions to promote literacy. Learners are encouraged to justify their reasons, answer open-ended questions and express their feelings, giving reasons when listening and speaking, involve themselves in shared reading and group-guided reading experiences. This document suggests that thinking and reasoning skills are to be integrated into general teaching pedagogies.

2.3 Encouraging constructive classroom environments

According to Bucholz and Sheffler (2009), the type of classroom environment that a teacher creates can either increase or decrease comprehension. Comprehension is increased when a teacher creates a welcoming environment through interaction with the learner (Cohen, Thapa & Ice, 2013). This welcoming environment creates a safe and comfortable environment for learners to achieve their full potentials (Cohen *et al.,* 2013). In line with this view, Cohen (2012: 88) suggests that teachers should create an environment conducive to learning, one in which learners feel at home. Findings from Firdaus's (2015) study provides evidence that creating an environment in which learners are verbally praised improved comprehension, thereby encouraging learning. Positive feedback from teachers boosted learners' self-esteem: learners engaged more in the classroom since they were motivated (Firdaus, 2015). Motivation is an important factor that contributes to a learner's active and authentic engagement (Saeed & Zyngier, 2012). Hattie (2009) observes that teachers' competencies, engagement and positive responses to each student are important to encourage learning.

One way of creating an encouraging environment that increases comprehension is for teachers to cater for the different learning styles while teaching (Makarova, 2014) because some learners are visual, others are auditory, tactile or kinaesthetic. Similarly, Swärd (2013) believes that teachers need to know and understand how learners learn in different ways, that all individuals are unique and have different experiences and backgrounds. This belief links to the suggestion made by Bucholz and Sheffler (2009) that teachers should use instructional methods that foster cooperation and acceptance of all learners in their classrooms.

3. THEORETICAL FRAMEWORK

This study is based on Vyotsky's (1978) Social Constructivist Theory with specific focus on the social interactions between the More Knowledgeable Other (MKO) who is the teacher and the learners (Vygotsky, 1978 as quoted in McLeod, 2014). The theory of social constructivism suggests that teachers need to do more than simply provide learners with information and answers (Cambourne, 2004). Teachers are MKOs who facilitate learning environments that help learners construct their own authentic understanding by building upon their pre-existing knowledge. A conducive learning environment provides a less anxious environment in which learners can interact and learn from the MKO to make their own understandings of texts. Social constructivism emphasises the collaborative nature of learning between the MKO, who

could be the teacher, peers or coach, and the learner. According to Jones and Araje (2002), the MKO is anyone who has a better understanding or a higher level of ability than that of the learner, with respect to a particular task, process or concept.

Learning through social interactions with the MKO occurs through a Zone of Proximal Development (ZPD), a type of guided learning that the child and the MKO co-construct (McLeod, 2014). The ZPD is explained by MacBlain (2018: 58) as the difference between what a child can do and achieve alone versus what a child can do and achieve with the guidance and help provided by a skilled MKO. The teacher provides guidance to the learner, who then in turn uses the guidance to adjust his/her own understanding of concepts. The MKO scaffolds the reading process by gradually granting responsibility for learning to the learner. In this current study, the teacher (MKO) first modelled her thinking processes when responding to a higher-order literacy question, and then stepped back to allow the learner to attempt it alone, while supporting and guiding the learner (a less-skilled person). The MKO has the responsibility to scaffold the learners within their ZPD so that they may experience achievement.

This study was based on the needs of Learner L (pseudonym). The teacher allowed Learner L to construct her own knowledge through interactions with the texts, and her teacher (the primary researcher) and her own world. The teacher used constructivist learner-centred approaches such as problem-centred learning and collaboration, when explicitly teaching reading comprehension strategies. By means of explicit teaching, the primary researcher systematically guided and modelled reading comprehension strategies which enabled Learner L to apply the strategies taught to her, to understand text independently. A systematic, planned approach was presented slowly, allowing Learner L time to learn and practise, and master newly acquired skills before new skills were introduced (Cambourne, 2004).

4. METHODOLOGY

A qualitative design was selected that allowed the researcher to collect in-depth data that answered the two research questions (McLeod, 2017). Qualitative designs help to explain the complexities of real-life situations that may not be captured through experimental or survey research.

The research took place in R Primary School (a pseudonym) located in an urban area in the Western Cape, South Africa. The school is located in an affluent residential area. Most of the learners do not live in this area as they come from outlying poorer areas. Their parents work in the area and enrol their children at this school. The language of learning and teaching (LoLT) in this school is English which is the second language of many of its learners. R Primary School is a quintile 5 school, which means it is a fee-paying school. Schools in South Africa are classified using the quintile system (WCED, 2013). The poorest schools, where learners do not pay fees, are in quintile one, two and three, while in quintile four and five schools, learners are required to pay fees (WCED, 2007; Gower, 2008). The ranking considers the surrounding communities and infrastructure. In R Primary School, the teacher to learner ratio is 1:30.

The researchers used purposive and convenience sampling. Learner L was “purposively chosen” (Creswell, 2014: 159) because she “fitted the criteria of desirable participants” (Henning, van Rensburg & Smit, 2004: 71). Learner L was a learner in the primary researcher’s Grade 2 class: she had been in the “middle” reading group where she was able to decode words but struggled to read for meaning. She had previously attended extra learning support

classes in her school yet continued to experience challenges in making "inferences". The past Grade 1 class teacher was interviewed to contribute to the understanding of Learner L's literacy journey (Henning *et al*., 2004). One parent of Learner L was interviewed to gain a deeper understanding of the home culture of literacy. Convenience sampling was chosen based upon Learner L's accessibility and availability (Creswell, 2014) which facilitated data collection.

4.1 Intervention Programme (IP)

As part of the data collection instruments, the researcher administered one week of pre-tests, a four-week intervention programme (IP) and one week of post-tests. The pre-tests were developed by a group of postgraduate students at a University of Technology in the Western Cape, South Africa. These comprehension tests comprised one passage and one question from each of the PIRLS comprehension questions: "Focus on retrieving explicitly stated information", "make straightforward inferences", "interpret and integrate ideas and information" and "evaluate and examine content, language and textual elements" (Howie *et al*., 2017: 23) from a text. The pre-tests were conducted over a week until the learner reached her frustration level because the tasks became too challenging (Treptow, Bums & McComas, 2007). The pre-test results are shown in Table 2.

Table 2 Pre-test results

Comprehension skills:	Number of questions:	Number of errors:	Per cent of errors:
Focus on retrieving explicitly stated information	8	1	12,5
Make straightforward inferences	8	5	62,5
Interpret and integrate ideas and information	8	1	12,5
Evaluate and examine content, language and textual elements	8	0	0

From Table 2, the "make straightforward inference" comprehension skill was identified as a specific higher order thinking skill that needed the greatest amount of attention. The goal of the IP was for Learner L to read with understanding and enjoyment, develop higher-order thinking skills (specifically inference skills) and to have a positive self-esteem where she accepted and worked on her challenges and utilised her strengths. The teacher explicitly taught higher-order comprehension by deploying the following strategies: "My Turn – Your Turn", "Think Aloud", "Anticipation Guide" and "Magic Square". The researcher used a motivational chart in order to improve Learner L's self-esteem and to motivate her to reflect on the activities done. After every lesson, Learner L recorded in her own writing what she felt she did well for that day. Each comment was written on a puzzle piece and each puzzle piece was stuck together after every lesson so that at the end of the programme, the puzzle pieces revealed the picture of a completed flower. The aim of this exercise was for Learner L to reflect on her learning, boost her self-esteem and motivate her to continue engaging in texts. Using the motivation chart encouraged a positive learning environment. By allowing Learner L to reflect and share in her own learning and growth, the researcher created a warm and non-threatening environment that inspired conducive learning of the taught skills.

After the four-week IP, the same comprehension tests as those used in the pre-test, were given to her as a post-test. The aim was to determine whether the percentage of errors in the 2nd level of questions (make straightforward inference) during the pre-test had reduced after the IP.

4.2 Interviews

The researcher collected data using one-on-one interviews. A semi-structured interview schedule was used that allowed the researcher to probe for more information in a flexible manner (Cohen, Manion & Morrison, 2007; Kumar, 2011). Learner L's Grade 1 teacher and her one parent were interviewed. The interview schedules were developed to gather data about the Grade 1 teacher's philosophy of teaching reading for meaning and the parent's home culture of reading. Both the previous teacher and one parent were contacted for suitable dates, venues and times for interviews. On the day of each interview, the previous teacher and one parent were reminded through SMS. The one-on-one interview lasted for 50–60 minutes. After each audio-recorded interview, the researcher made reflective notes. All interviews were conducted once.

4.3 Observations

In order to collect first-hand data in the learner's natural environment (the classroom), the researcher observed Learner L during the pre- and post-tests and the IP. The focus of these observations were about:

i. Learner L's responses to the higher-order questioning strategies; and

ii. how the learning environment created an opportunity for Learner L to read for meaning (Kumar, 2011).

The researcher was a participant observer, working with the learner; and she made notes on the open-ended observation schedule. According to Cohen *et al.* (2007), participant observations yield more valid or authentic data than would otherwise be the case with mediated or inferential methods. In total, 24 lessons (including pre- and post-tests) were observed since the researcher had a limited period in which to collect data. The observed lessons were conducted after school in the classroom.

The data collected from the interview and observation schedules were qualitatively analysed (Struwig & Stead, 2013). The interviews were transcribed and the researcher manually read all the data sources to familiarise herself with and gain an overall picture of the data. On the transcribed texts, codes were written next to issues that were related to the research questions and these codes were highlighted with different colours (Maree, 2007), and similar codes were joined to form themes. The themes were related to the research questions. The data from the observation schedules (pre- and post-tests and IP) were typed into a Microsoft Word document and a similar process to that of analysing the interviews, was used.

To ensure trustworthiness, the researcher triangulated the data sources. Triangulation, as explained by Cohen *et al.* (2007), refers to different methods of data collection producing substantially the same results. Triangulation is aimed at gaining more insight from different standpoints and increasing validity. This method was employed through collecting data from the pre- and post-tests, the IP, the interviews and the observation schedules. The data were then thoroughly analysed by grouping similar concepts together to ensure credibility and gain

a holistic understanding of the issues under study (Cohen *et al*., 2007; Shenton, 2004; Lincoln & Guba, 1985). The fact that there was considerable evidence of alignment between the three methods of data collection substantially enhanced the significance and reliability of the findings. The strategy of member-checking was used to ensure trustworthiness. The interview transcripts were sent back to the past teacher and parent to verify that the information was captured adequately and reflected their experiences (Creswell, 2009). The previous teacher and one parent were satisfied with the transcribed data.

Ethical clearance and written permission to conduct the study were granted by the university where the researcher was doing her postgraduate study (Ethics number: EFEC 37-13/2019) and by the Western Cape Department of Education for access into R Primary School. Permission was sought from the school's principal, the learner's one parent and the previous teacher. The participants were assured of the principles of privacy, anonymity and confidentiality. To honour that agreement, the researcher referred to the participants as Teacher 1 (T1), Parent 1 (P1) and Learner L. Participants were aware that participation was voluntary and that they could withdraw at any stage (Arthur *et al.,* 2012).

5. FINDINGS AND DISCUSSION

The research questions that guided this study were:

i. What higher-order comprehension strategies were used to teach a Grade 2 learner who struggled to read for meaning; and

ii. How did the learning environment create an opportunity for the Grade 2 learner to read for meaning?

From data collected by using pre- and post-tests, IP, interviews and observation schedules, the following two themes became evident:

- Teaching higher-order comprehension skills; and
- Creating a safe environment.

These themes are discussed in the following section.

5.1 Teaching higher-order comprehension skills

Table 3 shows the comparison of results between the pre- and post-tests after the four-week IP. It should be noted that the pre- and post-tests data were collected qualitatively but reported using percentages for clarity and ease of understanding.

Table 3 Pre- and post-test results

Comprehension skills	Pre-test % of errors	Post-test % of errors
Focus on retrieving explicitly stated information	12.5	0
Make straightforward inferences	62.5	12.5
Interpret and integrate ideas and information	12.5	12.5
Evaluate and examine content, language and textual elements	0	0

The pre-test results showed that Learner L found "making straightforward inferences" a challenge, however after the IP the percentage of errors dropped from 65.5% to 12.5%. The "focus on retrieving explicitly stated information's" percentage in errors also dropped (12.5% to 0%). The "evaluative and examine content, language and textual elements" and "interpret and integrate ideas and information" remained the same as those of the pre-test.

From the pre-test, it was evident that Learner L needed support with the second level of questioning which is "make straightforward inferences". During the interview with the past teacher (T1), she stated the following in response to how she taught comprehension:

> … asking questions, making predictions, inferences, ja, predictions, cause and effect … scrutinising a passage from inside out, what can we get out of it relating that to the learners themselves, their context.

Learner L's ability to explicitly retrieve information, evaluate texts, justify and give reasons was developed which correlates with the way in which T1 taught comprehension skills the year before. When asked what teaching strategies T1 focused on the year before, she asserted that:

> The focus was on detail, you know your level one…building on that to higher-order questioning, cause and effect.

Despite T1 sharing this detail, a year later, Learner L still experienced problems with understanding "inference questions".

Throughout the IP, the researcher incorporated a variety of teaching strategies in order to develop Learner L's higher order thinking skills, predicting skills, linking to her own world and making connections to her prior knowledge. The IP specifically focused on developing inference skills in order to enable Learner L to read for meaning. The researcher made the following observations:

> My Turn – Your Turn, Anticipation Guide, and Magic Square were all learner-centred and the learner made predictions and inferences based on her prior knowledge.

Based on Cambourne's (2004) idea of systematic and contextual teaching, the researcher planned the IP logically and sequentially allowing Learner L to move from the known to the unknown by gradually increasing the level of difficulty of the fiction and non-fiction texts. The researcher observed the following after implementing two different comprehension strategies:

> The theory observed was systematic teaching whereby what was taught the week before was reinforced. It made the learner more knowledgeable and confident in her learning. When the strategies were applied, Learner L made sense of them and applied them in order to answer open-ended questions. Everything she was exposed to was based on the reading and activity done the day/week before. Teaching was contextual and fitted into her own world.

This observation explained how Learner L was gradually developing higher order thinking skills. In the beginning of the IP, she answered questions with limited detail; however, as the IP continued, she began adding details and discussions to her answers and linking the content to her own lived experiences. This suggested to the researcher the extent to which she was developing critical higher order thinking skills. The researcher observed how Learner L used pictures in the texts to help her make meaning. The pictures served as a reading strategy

guide especially when she got stuck with difficult words. Learner L's parent (P1) stated the following regarding pictures:

> She is interested with books with pictures … she understands better if the book has got pictures.

The teacher was the MKO and assisted Learner L in co-constructing knowledge by making use of scaffolding. After modelling, the teacher allowed Learner L to attempt the strategy alone while providing assistance where needed. Through this scaffolding within Learner L's ZPD, a sense of achievement and success was reached.

It was apparent that teaching higher-order comprehension skills had a positive effect on the development of Learner L's predictive, critical thinking and inference comprehension skills, as shown in the post-test results. As the four-week IP continued, her ability to use longer and more detailed sentences, critically justify and predict outcomes of stories, all developed in order to answer higher-order questions.

5.2 Creating a safe environment

Throughout the IP, it became evident that the creation of a conducive learning environment played an essential role in enhancing Learner L's higher-order comprehension skills. According to Bucholz and Sheffler (2009), a warm classroom environment can lead to increased academic achievement, as comprehension is improved. T1 stated the following concerning how she reacted in the past:

> …the environment must definitely be an environment that is non-threatening in order to obtain optimal … level. Or in order to unlock those things that she isn't confident about because that is what the inferencing is about.

The researcher observed how Learner L was initially confident with the texts but became slightly withdrawn when she came across difficult words. Various comprehension strategies such as "Think Aloud", "Anticipation Guide" and "Magic Square" ensured that she learnt in a fun and anxiety-free way. This suggests that she was learning without the focus being on learning but rather on having fun. This development contributed to her feeling of safety and confidence in her learning environment. On the second day, after Learner L felt withdrawn the day before, the researcher made the following reflection:

> Learner L was engaged today and was stimulating her higher order thinking skills by justifying and giving reasons for her answers. After teaching her reading techniques to tackle difficult words, I was surprised with her confidence in committing to her answers and having a valuable reason for her choice. This shows that with guidance and a welcoming environment she was able to gain confidence in applying what she had learnt.

T1 added to this by saying the following when asked about Learner L's confidence:

> When she is not confident in something, she would pause and [remained] stuck there not being able to move on or to put something down which she knows just because there's that one barrier that she doesn't know how to cross … maybe having someone that you fear can even mute you.

Applying Cambourne's (2004) social constructivist theory allowed Learner L to co-construct her own knowledge and form her own understandings. The IP took place in the classroom after school where there were no disruptions, so the one-on-one interactions with

Learner L assisted in making her own real-life meaning. A welcoming atmosphere in which she felt safe and knew that her opinion was valued, allowed her to speak out more and share longer sentences. T1 stated the following as a general, overall comment to comprehensions, teaching and the learner:

> …to continue the culture of verbalising so we can build more confidence in, in her and maybe asserting herself on all levels and to have a welcoming atmosphere that whatever she contributes is valuable. I don't know, I see you as that kind of person that values the learners.

Educational research supports creating an atmosphere of mutual respect, where students feel relaxed in asking questions and expressing their thoughts and feelings (Stronge, 2002). The researcher cared for Learner L and the content in the IP was about what she selected which made her feel that she was valued. By praising and encouraging her, the researcher helped to create a safe environment conducive for learning, which enhanced comprehension. The use of the motivational chart contributed in creating an encouraging environment by allowing Learner L to reflect and explain in her own words what she had learnt in the lesson. The motivation chart boosted her self-esteem and allowed her to work on her challenges through reflection.

Having Learner L choose her own theme and sub-themes, relating it to things she was interested in and wanted to understand better, created a safe and non-threatening learning environment. Through the social constructivist theory, Learner L decided on the theme of "Nature" with a focus on Flowers. Learner L used her own prior knowledge to construct new knowledge, based on what she had read. Choosing her own theme motivated Learner L and created an overall conducive environment where higher order comprehension skills were developed and learnt.

6. CONCLUSION AND RECOMMENDATIONS

This small project was undertaken to determine higher-order comprehension strategies used to teach a Grade 2 learner who could not read for meaning in a sustained and coherent manner. The learning environment created an opportunity for Learner L to read for meaning. The results suggest that teaching higher-order thinking skills and creating a safe environment had an impact on developing Learner L's higher-order thinking skills. From the findings, the following conclusions and recommendations were made: teaching comprehension strategies explicitly, contextually and systematically (Cambourne, 2004) had a positive effect on Learner L. She became aware of higher-order strategies that she could use to read a text meaningfully. Therefore, the researchers conclude that when learners are exposed to a repertoire of higher-order reading comprehension strategies, they would use these strategies taught to them to understand texts.

The teacher, during the IP, provided an opportunity for Learner L to feel safe and secure which made her become confident in her academic ability and motivated her to learn. The teacher addressed Learner L's literacy thinking and reasoning needs one-on-one, whereby she tailor-made exercises based on Learner L's ability and interests which at the time was "Nature". Learner L learnt in a non-threatening and non-anxious environment. The researcher concludes that a one-size-fits-all approach in addressing learners' academic needs may not be effective, especially for learners who lack comprehension skills.

From the findings, it is recommended that higher-order reading comprehension strategies should be explicitly and systematically taught to learners so that they use these skills to meaningfully read a variety of texts. It is also recommended that schools organise reading comprehension workshops for parents to assist their children at home. These parents can be taught how to ask higher-order questions to their children which will then enable them to explore and justify their own thinking.

Due to the importance of higher-order thinking skills in understanding subjects across the curriculum, teachers across the world and in South Africa in particular, should be trained in higher-order comprehension strategies that they can integrate into their classroom reading programmes during curriculum delivery. Teachers need to be followed-up by subject advisors and curriculum specialists to ensure that they are using the strategies taught to them. Teachers may stop using comprehension strategies explicitly if they face problems and if there is no-one to support them.

The Intervention Programme was limited to one Grade 2 learner who presented difficulties in understanding inference skills. The improvement in her reading for meaning cannot be assumed for all learners. Though the focus of the study was on one learner, it yielded important information for schools and, teachers in particular, who want to improve their learners' comprehension skills. Further research with a larger sample of learners is recommended for generalisation.

REFERENCES

Arthur, J., Waring, M., Coe, R. & Hedges, L.V. 2012. *Research methods and methodologies in education.* New Delhi: Sage.

Beck, S. & Condy, J.L. 2017. Instructional principles used to teach critical comprehension skills to a Grade 4 learner. *Reading & Writing*, 8(1): 1–8. https://doi.org/10.4102/rw.v8i1.149

Bos, L.T., De Koning, B.B., Wassenburg, S.I. & van der Schoot, M. 2016. Training inference making skills using a situation model approach improves reading comprehension. *Frontiers in Psychology,* 7(116): 1–13. https://doi.org/10.3389/fpsyg.2016.00116

Bucholz, J.L. & Sheffler, J.L. 2009. Creating a warm and inclusive classroom environment: planning for all children to feel welcome. *Electronic Journal for Inclusive Education*, 2(4): 1–13.

Cambourne, B. 2004. Holistic, integrated approaches to reading and language arts instruction: The constructivist framework of an instructional theory. In A.E. Farstrup & S.J. Samuels (Eds.). *What research has to say about reading instruction.* Newark, DE: The International Reading Association, 3: 25–47. https://doi.org/10.1598/0872071774.2

Cekiso, M. 2012. Reading comprehension and strategy awareness of Grade 11 English Second Language learners. *Reading & Writing*, 3(1): 1–8. https://doi.org/10.4102/rw.v3i1.23

Cohen, J. 2012. Social, emotional, ethical and academic education. In P.M. Cohen, J.A. Thapa & A. Ice (Eds.). *School climate reform: Definitions and models. Manuscript in preparations.* Thousand Oaks: Sage.

Cohen L., Manion, L. & Morrison, K. 2007. *Research methods in education*, 6th ed. London: Routledge. https://doi.org/10.4324/9780203029053

Creswell, J. 2009. *Research design: Qualitative, quantitative, and mixed methods approaches*, 3rd ed. Thousand Oaks, CA: Sage.

Creswell, J. 2014. *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*, 4th ed. Delhi, PHI Learning Private Limited.

Currie, N.K. & Cain, K. 2015. Children's inference generation: The role of vocabulary and working memory. *Journal of Experimental Child Psychology,* 137: 57–75. https://doi.org/10.1016/j.jecp.2015.03.005

Danesi, M. 2015. *Magic squares: A touch of mysticism and a lot of brain-challenging fun!* Available at https://www.psychologytoday.com/us/blog/brain-workout/201506/magic-squares. [Accessed 07 July 2020].

Department of Basic Education (DBE). 2019. *National curriculum statements (NCS) Grade R-12.* Available at https://www.education.gov.za/Curriculum/NationalCurriculumStatementsGradesR-12.aspx. [Accessed19 May 2020]

Duffelmeyer, F. 1994. Effective anticipation guide statements for learning from expository prose. *Journal of Reading*, 37: 452–455.

Duke, N. & Block, M. 2012. Improving reading in the primary grades. *The Future of Children*, 22(2): 55–72. https://doi.org/10.1353/foc.2012.0017

Firdaus, F.H. 2015. Teacher praises and students' engagement in EFL classroom (a case study of seventh grade students at one of Junior High School in Bandung). *Journal of English and Education,* 3(2): 28–40.

Gower, P. 2008. All schools need decent funding. *Mail & Guardian*, May 9-15. https://doi.org/10.12968/fund.2008.1.86.39573

Hara, A. & Tappe, H. 2016. Inference generation and text comprehension in bilingual children: A case study. *Journal of Literary Criticism, Comparative Linguistics and Literary Studies*, 37(2): 1–12. https://doi.org/10.4102/lit.v37i2.1287

Hattie, J.A.C. 2009. *Visible learning: A synthesis of over 800 meta-analyses relation to achievement*. London/New York: Routledge.

Henning, E., Van Rensburg, W. & Smit, B. 2007. *Finding your way in qualitative research*. Pretoria: Van Schaik.

Howie, S.J., Combrinck, C., Roux, K., Tshele, M., Mokoena, G. M. & McLeod Palane, N. 2017. *Progress in international reading literacy study 2016*: *South African highlights report*. Pretoria: Centre for Evaluation and Assessment.

Jones, M. & Araje, L. 2002. The impact of constructivism on education: Language, discourse, and meaning. *American Communication Journal,* 5(3): 1–10.

Kispal, A. 2008. *Effective teaching of inference skills for reading: Literature review*. Research report DCSF-RR031. Berkshire, UK: National Foundation for Educational Research.

Klapwijk, N.M. 2015. EMC² = Comprehension: A reading strategy instruction framework for all teachers. *South African Journal of Education,* 35(1): 1–10. https://doi.org/10.15700/201503062348

Klapwijk, N.M. & Van der Walt, C. 2011. Measuring reading strategy knowledge transfer: motivation for teachers to implement reading strategy instruction. *Per Linguam*, 27(2): 25–40. https://doi.org/10.5785/27-2-106

Kumar, R. 2011. *Research methodology: A step by step guide for beginners*. London: Sage.

Lee, H. C. 2013. Thinking Matters: Inferencing in ESL reading lessons. *TESOL Journal,* 4(4): 717–742. https://doi.org/10.1002/tesj.75

Lincoln, Y.S. & Guba, E.C. 1985. *Naturalistic inquiry.* Beverly Hills, CA: Sage Publications. https://doi.org/10.1016/0147-1767(85)90062-8

Longman, M.M. 2020. *Survival guide to the foundation phase curriculum and assessment policy statements (CAPS).* Available at https://www.uj.ac.za.facultyofeducation. [Accessed 05 January 2020].

MacBlain, S. 2008. *Learning theories for early years practice.* London: Sage.

Makarova, E.A. 2014. Role of individual learning pathways in non-threatening teaching and learning environment development. *Universal Journal of Educational Research*, 2(5): 406–413. https://doi.org/10.13189/ujer.2014.020502

Maree, K. 2007. *First steps in research,* 1st ed. Pretoria: Van Schaik.

McKenna, M. 2002. *Help for struggling readers: Strategies for grades 3-8*. New York: Guilford.

McLaughlin, M. 2006. *Guided comprehension in the primary grades*. Newark, DE: International Reading Association.

McLeod, S.A. 2014. *Lev Vygotsky*. Available at https://www.simplypsychology.org/vygotsky.html [Accessed 11 June 2018].

McLeod, S. 2017. *Qualitative vs. quantitative research.* Available at https://www.simplypsychology.org/qualitative-quantitative.html. [Accessed 31 May 2019].

McNamara, D.S., Ozuru, Y. & Floyd, R.G. 2011. Comprehension challenges in the fourth grade: The roles of text cohesion, text genre, and readers' prior knowledge. *International Electronic Journal of Elementary Education*, 4(1): 229–257.

Muijselaar, M.M.L., Swart, N.M., Steenbeek-Planting, E.G., Droop, M., Verhoeven, L. & de Jong, P.F. 2017. Developmental relations between reading comprehension and reading strategies. *Scientific Studies of Reading*, 21(3): 194–209. https://doi.org/10.1080/10888438.2017.1278763

National Department of Basic Education. 2011. *National curriculum statement, curriculum and assessment policy statement: Foundation Phase Grade R-3.* Pretoria: Government Printers.

Ramaphosa, C. 2019. *State of the Nation Address 2019 (SONA).* Available at https://www.news24.com/Columnists/GuestColumn/full-text-let-us-grasp-our-future-with-both-hands-says-president-cyril-ramaphosa-in-sona-2019-speech-20190207. [Accessed 20 October 2019].

Ramaphosa, C. 2020. *State of the Nation Address 2020 (SONA).* Available at https://www.gov.za/speeches/president-cyril-ramaphosa-2020state-nation-address-13-feb-2020-0000 [Accessed 24 April 2020].

Rupley, W.., Blair, T.R. & Nichols, W.D. 2009. Effective reading instruction for struggling readers: The role of direct / explicit teaching. *Reading & Writing Quarterly*, 25: 125–138. https://doi.org/10.1080/10573560802683523

Saeed, S. & Zyngier, D. 2012. How motivation influences student engagement: A qualitative case study. *Journal of Education and Learning*, 1(2): 252–267. https://doi.org/10.5539/jel.v1n2p252

Shenton, A.K. 2004. Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information,* 22(2): 63–75. https://doi.org/10.3233/EFI-2004-22201

Stronge, J.H. 2002. *Qualities of effective teachers*. Alexandria, VA: Association for Supervision and Curriculum Development.

Struwig, F.W. & Stead, G.B. 2013. *Research: Planning, designing and reporting,* 2nd ed. Cape Town: Pearson.

Swärd, A. 2013. Improve students' self-esteem through re-learning in reading and writing. *The European Journal of Social & Behavioural Sciences*, 2(17): 318–338. https://doi.org/10.15405/FutureAcademy/ejsbs(2301-2218).2012.2.14

Talley, P.C. & Hui-ling, T. 2014. Implicit and explicit teaching of English Speaking in the EFL Classroom. *International Journal of Humanities and Social Science*, 4(6): 38–46.

Taylor, N., Draper, K., Muller, J. & Sithole, S. 2012. *The state of literacy teaching and learning in the Foundation Phase*. Pretoria: Government Printers. Available at https://www.politicsweb.co.za. [Accessed 29 April 2019].

Treptow, M.A., Bums, M.K. & McComas, J.J. 2007. Reading at the frustration, instructional, and independent levels: The effects on students' reading comprehension and time on task. *School of Psychology Review,* 36(1): 159–166. https://doi.org/10.1080/02796015.2007.12087958

Western Cape Education Department. 2007. *National quintile system*. Available at https://www.westerncape.gov.za/. [Accessed 16 May 2019].

Western Cape Education Department. 2013. *Background to the national quantile system.* Available at https://wcedonline.westerncape.gov.za/comms/press/2013/74_14oct.html. [Accessed 30 May 2020].

Western Cape Education Department. 2020. *WCED Systemic test results 2018.* Cape Town: Cape Peninsula University of Technology.

World Bank. 2018. *World development report 2018: Learning to realize education's promise*. Washington, DC: World Bank.