


Breaking the cycle of poor critical reading comprehension: A strategy-based intervention

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Received: 17 Apr. 2024

Accepted: 16 Aug. 2024

Published: 21 Oct. 2024

How to cite this article:

Olifant, F.M., 2024, 'Breaking the cycle of poor critical reading comprehension: A strategy-based intervention', *Literator* 45(1), a2080. <https://doi.org/10.4102/lit.v45i1.2080>

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Critical reading comprehension is a crucial skill for lifelong learning, but many learners struggle with effectively extracting meaning from texts. This study aimed to address this issue by investigating how a strategy-based instruction intervention could impact learners' critical reading comprehension competence. The study employed a quantitative approach with a quasi-experimental pre- and post-test control group design. The participants were 155 Grade 9 English first additional language (FAL) learners from two high schools in Gauteng, South Africa. The intervention programme was based on Bloom's taxonomy categories for learning, teaching and assessing, modified into six strategies: (1) knowledge (pre-reading), (2) comprehension (extracting meaning), (3) application (asking questions), (4) analysis (reflection), (5) evaluation (outlining key concepts and decision-making) and (6) synthesis (summarising). Using a two-way mixed analysis of variance (ANOVA) paired sample *t*-tests, the study found that while both groups' critical reading comprehension competence increased, the experimental group that received the strategy-based instruction intervention performed significantly better in the post-test, showing a significant improvement compared to the control group. The findings demonstrated that providing clear explanations, instruction and support on reading strategies can enhance learners' critical reading comprehension, highlighting the mutual reliance between teaching and learning. The teacher's instructional approach in guiding learners to effectively use reading strategies is crucial for enhancing critical reading comprehension in the English FAL classroom. In conclusion, the results suggest that the intervention effectively enhanced critical reading comprehension competence, and if implemented by teachers, it could potentially help break the cycle of poor critical reading comprehension among English FAL learners.

Contribution: The contribution of this study lies in its provision of empirically supported perspectives and insights into the effectiveness of strategy-based instruction interventions. It emphasises the necessity of employing explicit reading comprehension pedagogies and targeted interventions, along with explicit instructional strategies, to address the reading comprehension challenges encountered by English FAL learners in South Africa and beyond.

Keywords: critical reading comprehension; strategy-based instruction intervention; reading strategies; reading competence.

Introduction

Reading is essential for lifelong learning (Koch & Spörer 2017), with comprehension being critical to this process (Klapwijk 2015). In today's economically competitive global climate, reading is a crucial skill for survival, enabling learners to critically engage with texts, question privileges and challenge injustices (Comber 2006). Parris, Gambrell and Schleicher (2008) argue that proficiency in reading literacy is essential for societal and economic engagement. Similarly, Biancarosa and Snow (2006) highlight the disadvantages individuals face in social, civic and professional environments when they lack reading literacy skills.

Yuan (2020) emphasises that reading comprehension is vital for learners to acquire new information. By the time learners reach high school (Grades 8–12), it is expected that they have already developed a certain level of reading comprehension competence, because the development of reading skills primarily takes place during the primary school years (Grades R–7), laying the groundwork for reading comprehension abilities (Gunning 2007). However, many learners struggle because of challenges experienced during the learning-to-read phase in primary school.

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Sanford (2015) highlights a significant challenge to learners' primary school reading competency: their inability to distinguish between individual letter sounds, which is essential for word recognition. The reason for this challenge is that during the learning-to-read phase in Grades 1–3, there is inadequate mastery of the blending of sounds within words, the decoding of words and the ability to retain phonological information, which greatly contributes to poor later reading abilities (National Reading Panel 2000a; Swanson, Kehler & Jerman 2009). Limited linguistic development in these foundational years can severely impede academic progress and language growth (Pretorius & Spaul 2016) in high school and thereafter. Furthermore, deficits in working memory and vocabulary also exacerbate reading challenges (Caccamise & Snyder 2005; Sanford 2015; Swanson et al. 2009). While basic education in South Africa aims to develop meaningful reading by Grade 3 (Gumede & Boakye 2020), many learners still lack accuracy, fluency and comprehension support by this point (Tatter 2018), necessitating effective interventions like strategy-based instruction.

In high school, many South African learners read below their grade level, facing barriers to text engagement (ed. Guthrie 2008). Given that most high school instruction relies on textbooks, the ability to learn through reading is critical. Unfortunately, many learners cannot independently access the knowledge embedded in curriculum materials, hindering their ability to learn effectively (Schoenbach et al. 2000). Klapwijk (2015) points out that learners' struggles with reading comprehension are compounded by teachers' inability to teach this skill effectively. Botha et al. (2008) highlight that teachers often lack a deep understanding of reading instruction, leading to a reluctance to incorporate reading strategies, which negatively impacts the quality of education. This lack of comprehension instruction in classrooms (Bećirović, Brdarević-Čeljo & Dubravac 2018) is further exacerbated by the absence of ongoing reading programs in higher grades (Pretorius & Murray 2019), which underscores the urgent need for strategy-based instructional interventions to equip learners with essential comprehension skills.

Research (Adebayo 2008; Cekiso 2012) indicates that effective teaching and reading comprehension strategies can improve learners' reading proficiency. However, poor reading comprehension remains a global issue, with stagnating or declining scores in countries like the United States of America (USA) and Australia (Elleman & Oslund 2019; OECD 2018). In South Africa, the 2021 Progress in International Reading Literacy Study (PIRLS) benchmark assessments revealed that 81% of Grade 4 learners could not read for meaning, underscoring the ongoing need for effective reading literacy education.

To address gaps in teacher skills, the South African Department of Education introduced the National Reading Strategy in 2008. However, poor comprehension among English first additional language (FAL) learners remains

a persistent issue (Department of Education 2008). Furthermore, assessments by the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) consistently show below-average reading comprehension among Grade 6 learners, with minimal improvement from 2000 to 2007 (Pretorius & Spaul 2016). In SACMEQ Phase III, South Africa ranked 10th out of 14 nations in reading proficiency (Pretorius & Spaul 2016). Pretorius (2002) suggests that this 'negative cycle of failed reading' can be disrupted through strategy instruction.

Although the 2014 Annual National Assessment highlighted gains in basic reading literacy, it also emphasised the higher-order comprehension difficulties, with Grade 9 scores ranging from 0% to 89%, and a mode of 31% (Department of Basic Education 2014). Pretorius and Klapwijk (2016) and Bharuthram (2012) argue that comprehension instruction in South African high schools lacks attention and emphasis on instructional strategies, a deficiency compounded by inadequate pedagogical knowledge and a lack of focus on strategy-based instruction intervention.

The South African basic education system acknowledges the importance of critical literacy, as emphasised in the Curriculum and Assessment Policy Statement (CAPS) (DBE 2011). This statement highlights the development of higher-order comprehension skills and the teaching of reading strategies. Additionally, the National Education Evaluation and Development Unit (NEEDU) report (Taylor 2013) advises against rigidly following the curriculum without a thorough understanding of its requirements, attributing poor learner outcomes to insufficient pedagogical content knowledge, inadequate subject knowledge and a limited understanding of developing and assessing learners' critical literacies.

In addition, results from the PIRLS conducted in South Africa in 2006, 2011, 2016 and 2021 consistently reveal a deficiency in reading literacy among South African learners, particularly in the realm of the critical thinking and reasoning skills necessary for critical reading comprehension. These results have spurred researchers to investigate efficient ways of introducing South African learners to strategy-based reading instruction meant to cultivate and nurture critical reading comprehension skills in the classroom. Taking these results into consideration, the researcher hopes to further the conversation about learners' critical reading comprehension skills by examining how a strategy-based instructional intervention process improves reading comprehension in Grade 9 English FAL learners. The goal of this intervention project is to close the knowledge gap regarding reading comprehension among high school learners by addressing the following research questions:

- How did the strategy-based instruction intervention process assist Grade 9 English FAL learners' critical reading comprehension?

- What effect did the use of a strategy-based instruction intervention have on Grade 9 English FAL learners' critical reading comprehension competence?

The researcher approached this study with the view that learners' reading comprehension is crucial to their academic and societal advancement; hence, it requires further research.

Literature review

Critical reading comprehension

Critical reading comprehension involves previewing text, accessing background knowledge and developing vocabulary, as noted by Oakhill, Cain and Elbro (2015), Ford-Connors and Paratore (2015), and Nagy and Townsend (2012). Boardman et al. (2015) and Guthrie and Klauda (2014) describe it as engaging the reader actively to understand and synthesise knowledge. Learners' interactions with texts are influenced by personal experiences, past and present knowledge and discourse competence, which is the ability to create or interpret oral or written texts for communication (Van der Walt, Evans & Kilfoil 2009:43). Reading is the integration of sounds, symbols, meanings and sequences in the brain, facilitating comprehension (Woolfolk 2014). Yuan (2020) explains that critical reading comprehension is when learners create mental schemas, extract and combine content and achieve a new understanding through critical thinking.

Vaseghi, Gholami and Barjesteh (2012:406) suggest that critical reading requires reflection while reading. Raman, Sharma and Collins (2013:252) further note that critical reading and thinking are interdependent skills, involving analysing, interpreting and evaluating texts. Similarly, Bobkina and Radoulska (2016:681) assert that critical reading involves interpreting a text and drawing diverse inferences, potentially leading to alternative conclusions. This study investigates critical reading comprehension as a strategy to delve into texts, identifying deeper meanings, understanding authors' intentions and fostering comprehension through a critical mindset. To put it differently, critical reading cannot be separated from language use or the sociocultural, economic or political context of society. Accordingly, Pretorius and Ribbens (2005) argue that literacy, including critical reading, is dependent on the sociocultural context in which it occurs, such as how people use literacy to interact, how literacy is valued by the community or what functions literacies perform in society.

Critical thinking: A critical reading comprehension prerequisite

Critical thinking is essential for critical reading. Weissberg (2013) explains it as looking beyond the letter or the act to understand the elements influencing thought processes, while Facione (2007:44) defines it as 'reflective decision-making and thoughtful problem-solving'. Likewise, Halpern (2002:6) describes critical thinking as purposeful, reasoned and goal-directed thinking, involved in solving problems, making inferences and making decisions.

Critical thinking includes interpreting, analysing, evaluating, inferring, explaining and self-regulating information (Facione, cited in Belluigi 2009:700). It requires open-mindedness, logical reasoning and evidence-based conclusions, rendering it crucial for workforce success, solving problems, adapting to economic changes and contributing to progress and innovation.

The teacher's role in the critical reading comprehension process

Teachers play a crucial role in fostering critical thinking and reading comprehension. South African education aims for learners to develop cognitive capabilities, including critical evaluation of information and problem-solving using critical thinking (DoE 2002:10). However, challenges persist in fully developing these skills, especially among historically disadvantaged learners with limited resources (Reddy, Prinsloo & Visser 2012; South African Human Rights Commission 2015). Teachers must model critical thinking to encourage critical reading comprehension. By guiding learners in developing these skills, teachers empower them to assess and evaluate information critically, as emphasised by Galyam and Le Grange (2005:25). Integrating critical thinking into teaching methodologies could help learners navigate complex texts and possibly break the cycle of poor reading comprehension.

Critical reading comprehension strategies

Reading strategies are cognitive tools that aid comprehension and monitor the reading process (Afflerbach & Cho 2009; Afflerbach, Pearson & Paris 2008). Cognitive strategies involve direct interaction with texts, while metacognitive strategies involve managing and evaluating one's own reading process (National Reading Panel 2000b; Vaez Dalili & Tavakoli 2013; Vaseghi et al. 2012).

Reading is a learned skill, and specific strategy instruction is crucial for improving learners' critical reading comprehension. Pressley et al. (2006) highlight the importance of classroom instruction in developing these skills. First-language strategies may not transfer to second-language instruction, making strategy instruction vital in language learning classrooms (Snow, Griffin & Burns 2005). Research supports the use of various strategies and multimethod education to promote critical reading comprehension in classrooms (Guthrie & Humenick 2004; Pressley 2002; Yapp, De Graaff & Van Den Bergh 2021).

As an example, Cekiso and Madikiza (2014) identify three classifications of reading strategies: pre-reading, during-reading and post-reading, which teachers can use to enhance learners' comprehension. Brantmeier (2002) advocates for skimming, scanning and guessing as effective strategies. Axelrod and Cooper (2002) emphasise annotating, previewing, contextualising, outlining, analysing, summarising, paraphrasing, synthesising, questioning and reflecting as key strategies. Pretorius and Murray (2019) recommend activating

prior knowledge, predicting, visualising, asking questions and monitoring comprehension as essential strategies. Hall (2004) suggests that effective reading involves evaluating one's practices and developing critical reading skills.

Spörer, Brunstein and Kieschke (2009) studied the use of summarising, questioning clarifying and predicting strategies in primary schools, finding that these strategies improved learners' comprehension. Singhal (2001) concludes that strategy instruction enhances reading performance when extracting meaning from texts. However, despite various strategies, challenges in reading comprehension persist, with 81% of South African learners unable to read with understanding (PIRLS 2021). Critics argue that the issue may lie in the implementation of strategies, not the strategies themselves (Duke & Pearson 2009; Pressley & Allington 2015).

Regrettably, the persistent reality is that many South African learners face challenges in reading comprehension (PIRLS 2006, 2011, 2016; Pretorius & Machet 2004), exacerbated by teachers' underdeveloped understanding of teaching reading. The South African National Reading Strategy (2008:8) acknowledges that many teachers lack a deep understanding of teaching literacy, reading and writing, believing learners would teach themselves to read.

The level of reading comprehension competence among South African learners is concerning. Without effective strategy instruction, learners may continue to struggle, affecting their academic success and future opportunities.

Methodology

Approach and design

The study followed a quantitative explanatory research approach using a quasi-experimental control group design to analyse data from pre-test, intervention and post-test critical reading comprehension activities. A quantitative explanatory approach suits this study by focusing on causal links between the independent variable (intervention) and dependent variable (critical reading competence) (Ginsberg 2001). An experimental design determines if a treatment affects a result

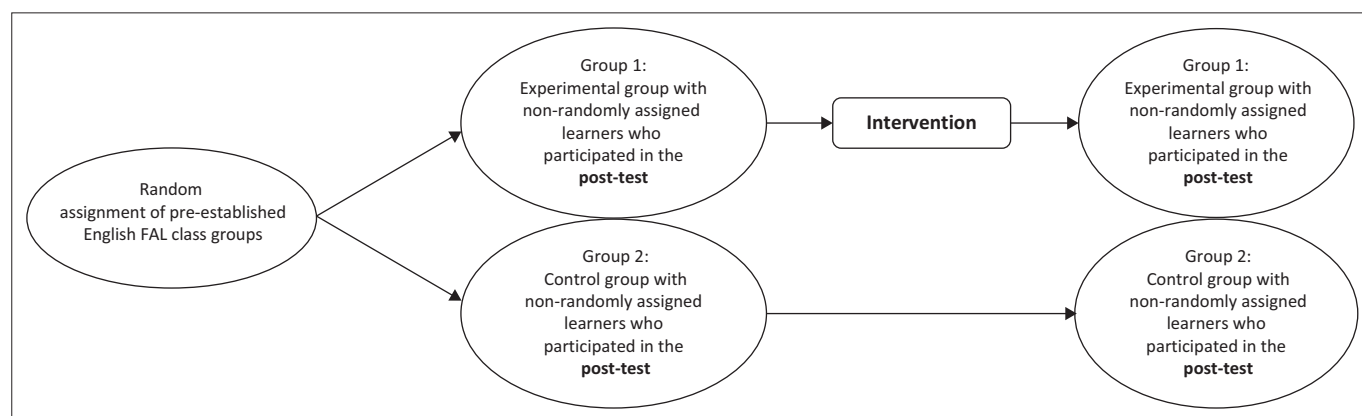
(Creswell 2009), emphasising the need for a quantitative experimental design to examine causal relationships between teaching critical reading strategies and enhancing reading abilities. Comparisons between intervention and control groups facilitated inferring causality for educational theory and practice.

Respondents

Participants were Grade 9 English FAL learners from four classes in two Gauteng high schools. One Grade 9 English FAL class from each school constituted the experimental group (Group 1), and one class from each school constituted the control group (Group 2), totalling two classes per school. Since the learners were selected based on a pre-established English FAL class-based criterion, placing them in their respective groups, random sampling was used. Apart from the random assignment of pre-established class groups, there was no random selection of participants within the class groups, no random assignment of participants within the class groups and no active manipulation of research participants (Abraham & MacDonald 2011). In other words, the experiment participants were not randomly assigned (Creswell 2009:155). Figure 1 illustrates the sampling process followed.

The study had an element of non-equivalency between groups as existing classes were used. Four intact Grade 9 classes per school were used, with two classes per school forming one experimental and one control group per school, labelled Group 1 and Group 2. The randomly assigned classes allowed observation of the strategy instruction intervention's impact on critical reading comprehension.

Table 1 shows that in School A, 42 learners (27%) formed the control group, and 41 learners (27%) formed the experimental group. From School B, there were 39 learners (25%) in the control group and 33 (21%) in the experimental group. A total of 83 learners from School A and 72 learners from School B made up the pre-test and post-test sample size of 155 learners.



Source: Adapted from Maree, K., 2016, *First steps in research*, p. 168, Van Schaik Publishers, Pretoria and McMillan, J.H. & Schumacher, S., 2014, *Research in education: Evidence-based inquiry*, 7th edn., p. 292, Pearson Education, London

FAL, first additional language.

FIGURE 1: Randomised pre-test and post-test control group presentation.

TABLE 1: Population sample representation.

| Grade identification | School A | | School B | |
|---|---|---------------|------------------|---------------|
| | Experiment group | Control group | Experiment group | Control group |
| Group type | Experiment group | Control group | Experiment group | Control group |
| Number of learners per class | 41 learners | 42 learners | 39 learners | 33 learners |
| Number of learners per school | 83 | | 72 | |
| Total number of learners per group type | Experimental group: 80; control group: 75 | | | |
| Total number of participating learners | 155 Grade 9 English FAL learners | | | |

FAL, first additional language.

Data collection methods, instruments and procedure

The researcher used grade-appropriate reading comprehension activities (Anderson et al. 2001; Yu 2015) as the pre-test before the intervention and the post-test after the intervention as the data collection method to explore how Grade 9 English FAL learners engage with text through a critical reading lens. The range of questions used in the comprehension pre-test and post-test incorporated the six strategies (knowledge, comprehension, application, analysis, evaluation and synthesis) employed in the intervention programme. Within the context of this study, the intervention programme refers to the critical reading lessons provided to the learners in the experimental groups by the researcher (also referred to as the intervention teacher), with the purpose of supporting and improving their comprehension and critical reading practices (Wallace 2015:152).

The experimental groups ($n = 80$) received the critical reading pre-test, intervention and post-test, while the control groups ($n = 75$) only received the pre-test and post-test to serve as benchmark points of comparison and to measure the degree of change that occurred as a result of the intervention that the experimental group received. However, it needs to be mentioned that, for the purpose of inclusive education, the control group learners also received the intervention programme after the study was completed.

The participating learners from both groups at the two schools completed both the pre-tests and post-tests at a time arranged with them in advance. Both the pre-test and post-test activities were conducted under the supervision of the researcher. The grade-appropriate scholastic reading comprehension pre-test and post-test consisted of paragraph-formatted passages addressing contemporary issues that were relatable to learners. The tests were derived from CAPS teaching and learning materials, which ensured that South African curriculum guidelines were followed. Learners completed the pre-test within 40 min and the post-test within 35 min under the researcher's supervision. They did not receive the answers after the pre-test to avoid jeopardising the credibility of the post-test results.

The researcher interacted with each experimental group (Group 1) from the two schools on eight occasions over 6 months – once to administer the pre-test, six times for intervention lessons and once to administer the post-test. On the other hand, the researcher interacted with each of the control groups (Group 2) on two occasions over the 6 months – once to administer the pre-test and once to administer the post-test. No intervention lessons were administered to the

control groups (Group 2), and they continued with their regular school programme.

The study employed pre-test and post-test evaluations to assess the impact of a strategy intervention programme on Grade 9 English FAL learners' critical reading comprehension. The term 'test' in this study refers to a systematic way of gathering information about the critical reading comprehension competencies of the Grade 9 English FAL learners and expressing this information in numerical form (Imenda & Muyangwa 2000:148). The scores from these tests informed inferences about learners' critical reading competence. Furthermore, each participant's numerical score for the pre-test was compared to that participant's numerical score for the post-test to establish whether the proposed intervention programme could contribute to the improvement of the state of critical reading comprehension instruction in South Africa.

Intervention

Over a period of 6 months, the researcher, who is also a qualified teacher implemented the intervention process by delivering reading intervention sessions to learners assigned to experimental groups. The measurement instruments utilised for the pre-test, intervention and post-test phases were founded upon six critical reading strategies drawn from Bloom's taxonomy categories pertaining to learning, teaching and assessment, as documented by Yu (2015:134) Anderson et al. (2001). These strategies are (1) knowledge (pre-reading the material), (2) comprehension (extracting meaning), (3) application (asking questions), (4) analysis (additional thought and reflection), (5) evaluation (making decisions and outlining the main ideas) and (6) synthesis (summarising). These listed strategies adapted from Yu (2015:134–136) and Pretorius and Murray (2019:187) assisted the researcher in exploring and answering the following research questions:

- How did the strategy-based instruction intervention process assist Grade 9 English FAL learners' critical reading comprehension?
- What effect did the use of a strategy-based instruction intervention have on Grade 9 English FAL learners' critical reading comprehension competence?

The researcher demonstrated each strategy to the learners using the following process:

Strategy 1: The knowledge strategy (pre-reading the text)

As an introduction, draw the learners' attention to the text's topic and ask them to consider what they already know about it.

Example of strategy usage in the classroom: Before delving into the text about job applications for Metro Police learners, the teacher initiates a pre-reading activity. Learners are instructed to skim through the text, paying attention to headings, subheadings and any bold or italicised text. They jot down keywords or phrases that stand out to them. Following this, the teacher facilitates a brief discussion about what learners know about this topic, which allows them to share their initial impressions of what the text might be about based on their pre-reading activity. This helps them develop an understanding of the topic and structure of the text before diving into a more thorough reading.

Strategy 2: The comprehension strategy (extracting meaning)

Critical reading involves placing a text in its historical, biographical and cultural contexts to demonstrate understanding. The learners were taught how to apply the meaning-making ability (*reading comprehension*) when reading the text by activating their prior knowledge schemata about a topic.

Example of strategy usage in the classroom: After reading the text, learners engage in a comprehension activity. They are divided into small groups and given specific prompts to discuss and analyse the text. For instance, they may be asked to identify the main idea of each paragraph, discuss the significance of the job application event for the community or evaluate the challenges faced by the job seekers. Through this activity, learners practise extracting meaning from the text while considering its historical, biographical and cultural contexts, thus enhancing their comprehension skills.

Strategy 3: The application strategy (asking questions)

Learners engage in critical reading by asking questions and receiving assistance to enhance their comprehension of a text, as well as demonstrate the application reading strategy. This helps them connect the words they read to their world and identify characters, themes or situations in the text. The *application* critical reading strategy assists the learner in correlating the words they read to the world they live in.

Example of strategy usage in the classroom: To deepen their understanding of the text, learners are tasked with generating questions based on the content. They work individually or in pairs to formulate questions about the job application process, the motivations of the applicants or the role of the Metro Police in the community. Afterwards, they share their questions with the class, and the teacher facilitates a discussion to address these questions, encouraging critical thinking and fostering a deeper comprehension of the text.

Strategy 4: The analysis strategy (additional thought and reflection)

Learners *analyse* texts to challenge their attitudes, beliefs and current issues. They analyse information, make inferences and consider the author's perspective so they can agree or disagree

based on their individual knowledge framework. Moreover, critical reading helps learners understand the text more thoroughly by requiring a cognitive and emotional connection. Failure to apply this strategy may lead to confusion or anxiety, as they cannot relate to the content cognitively or emotionally.

Example of strategy usage in the classroom: Learners engage in a reflective activity where they critically analyse the text and its implications. They are asked to identify any implicit biases or assumptions present in the text, evaluate the effectiveness of the job application process described and consider the broader social and economic issues highlighted in the article. Through this analysis, learners develop a deeper understanding of the text's underlying messages and themes, honing their critical reading and reflection skills.

Strategy 5: The evaluation strategy (making decisions and outlining the main ideas)

The *evaluation* critical reading strategy proves that learners can read with a questioning mind, which will result in comprehension, evaluation and the decision to accept or reject what was read, as well as whether they agree or disagree with the textual information. The learners engage in dialogue about the topic of discussion with the teacher and amongst themselves, which promotes multiple interpretations of the text, reflecting the decisions learners made based on the text.

Example of strategy usage in the classroom: After comprehensively understanding the text, learners are tasked with evaluating its content and outlining the main ideas through group discussions. They work collaboratively to create a summary or outline of the key points discussed in the article, highlighting the most significant information about the job application event and its impact. This activity encourages learners to engage critically with the text, make informed decisions about its relevance and credibility, and articulate their understanding concisely.

Strategy 6: The synthesis strategy (summarising)

Summarising requires creative *synthesis* and entails interpreting the original text, rewriting and creating new content in the form of a condensed version with a similar, different or alternative perspective (strategy instruction process adapted from Yu 2015:134–136). To instruct the learners on how to use Strategy 6, the researcher requested that they verbalise their thoughts in their own words and in a much more condensed form, demonstrating how critical reading can lead to a deeper understanding of any text, resulting in the creation of new or alternative views of the text, which is the primary goal of critical reading.

Example of strategy usage in the classroom: To synthesise their understanding of the text, learners are asked to create a condensed version of the article, maintaining its original structure but presenting the information in a more concise format. They focus on capturing the essential details and main ideas while omitting unnecessary details. Through this

activity, learners demonstrate their ability to comprehend complex information, summarise key points effectively and communicate their understanding in a clear and succinct manner.

To conclude each lesson, the researcher engaged learners in a group discussion to (1) establish what they had learned about the text using the strategy taught, (2) discuss the difficulties or successes they had using the strategy-based instruction intervention to deepen their understanding of the text and (3) discuss how they could put it into practice by applying it to reading experiences both inside and outside the classroom.

Data analysis

For this study, the data were analysed using pre-test and post-test measurement instruments, which were subsequently processed by a qualified statistician using Statistical Product and Service Solutions (SPSS) Statistics.

The data from both instruments were presented in a table (Table 4), based on the six critical reading comprehension strategies, using frequency and percentage scores. The visual displays provided an analytical description and interpretation of the data through descriptive and inferential statistical procedures. A two-way mixed analysis of variance (ANOVA) was applied, allowing the researcher to correlate and compare within-group effects (natural variation in measurements) with between-group effects (differences in group means) (Creswell 2014; Maree 2016). Within-group (or within-subject) effects refer to repeated measurements over time on the same group, resulting in within-subject variability, while between-subject effects compare results across different groups in terms of outcome scores (Creswell 2016). Descriptive statistics, indicating patterns, trends and data spread (mean, median, standard deviation), were used to describe findings from the pre-test and post-test instruments. Inferential statistical analyses were performed on the pre-test and post-test scores for each group using comparison results: $F(IV\ df, error\ df) = F\text{-Ratio}, p = Sig., n^2_p = \text{partial eta squared}$. Finally, inferential statistical analyses were applied to the pre-test and post-test, as well as to the control and experimental groups (emphasising the 2×2 mixed ANOVA), using the formula: $t(df) = t\ \text{value}, p = p\text{-value}$. Descriptive statistics convert numbers or observations into graphical or numerical representations for better understanding (Maree 2016:204), while inferential statistics reflect probability within and between variables, enabling the researcher to make inferences about a population based on the sample (McMillan & Schumacher 2014:3). The ANOVA uses an F -test to establish significant differences between variables.

Test reliability, validity and dependability

Test reliability refers to the consistency and error-free nature of scores (McMillan & Schumacher 2014). The pre-test and post-test score coefficients were compared to compute the intervention effect's reliability. On the other hand, *validity* was ensured by using participants' numerical scores to make

inferences, strengthening interpretation validity (Gorin 2007). Furthermore, *internal validity* reflects control over variables apart from the intervention, assisted by using a control group to reduce threats (Gall, Gall & Borg 2007; Maree 2016).

Findings

The results from the comprehension pre-test and post-test were used to explore whether the strategy-based instruction intervention lessons had any significant effect on the critical reading comprehension competence of the participating learners.

A two-way mixed ANOVA was conducted to investigate the effect of the intervention on the (1) within-subjects variable (pre- and post-test) and (2) between-subjects variable (experimental and control group). The pre-test and post-test constituted the **within-participant (that is, within-group)** variables, while the experimental and control groups represented the **between-participant (that is, between-group)** variables. A variable, in the context of this study, is a characteristic that expresses a construct that can be measured to determine its value or observed by the researcher, and it varies between individuals (Creswell 2014:14; McMillan & Schumacher 2014:7).

The results guide (Table 2) was used to provide insight into the calculations and interpretations of the various values used for this study.

The results of each participant's tests, as reported in Table 3, were used to determine the effectiveness of the strategy intervention programme and whether it could help Grade 9 English FAL learners improve their critical reading comprehension competence.

Table 3 provides descriptive statistics of the scores jointly obtained by the groups for the pre-tests and post-tests. To determine the statistical differences between the scores that the two groups of learners (i.e. the experimental group and the control group) obtained between the pre-test and the post-test and to offer insight into the pattern of the results, the two-way mixed ANOVA statistical method was utilised. Additionally, the recorded data show the standard deviation (difference between the two groups' scores) and the mean (average) score for the pre- and post-tests.

The effectiveness of the intervention was assessed by comparing the pre- and post-test results following the critical reading strategy intervention. Because seven learners from School A and four from School B were absent on the day the post-tests were given, fewer learners in both schools completed the post-tests than the pre-tests. The pre-test standard deviation in School A is 3.551, while the post-test standard deviation is 3.119. School A's pre-test average was 10.17, and its post-test average was 10.87. School B's pre-test showed an average score of 9.55, and its post-test showed an average of 10.22, with standard deviations of 2.811 and 2.662 for the pre- and post-tests, respectively.

TABLE 2: Results guide.

| | | |
|---|--|---|
| 1. Mean (M) indicates the average value. | 2. Standard deviation (SD) indicates the spread of values around the mean. | 3. F -ratio statistic is calculated by ANOVA and indicates the degree of freedom (df). |
| 4. Probability value (p) is used to determine the significance level (sig.). $p > 0.05$ (not sig.); $p < 0.05$ (sig.) | 5. Partial eta squared (η^2) is used to determine the magnitude of the effect size; 0.14 >: large effects; 0.06 >: medium effects; 0.01 >: small effects. | 6. Paired samples test: t (df) = t value, $p = p$ -value $p > 0.05$ (not sig.); $p < 0.05$ (sig.) |

Source: Created based on Maree, K., 2016, *First steps in research*, Van Schaik Publishers, Pretoria and Creswell, J.W., 2014, *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*, 4th edn., Pearson, London.

ANOVA, analysis of variance.

TABLE 3: Pre-test and post-test scores.

| Test type | Number of participants | Minimum score (from 20 marks) | Maximum score (from 20 marks) | Mean | Standard deviation |
|----------------------|------------------------|-------------------------------|-------------------------------|-------|--------------------|
| Pre-test (School A) | 90 | 2 | 17 | 10.17 | 3.551 |
| Post-test (School A) | 83 | 4 | 18 | 10.87 | 3.119 |
| Pre-test (School B) | 76 | 1 | 15 | 9.55 | 2.811 |
| Post-test (School B) | 72 | 5 | 17 | 10.22 | 2.662 |

The average number of correct responses in the School A groups also increased, from 10.17 in the pre-test (mean = 10.17, standard deviation [SD] = 3.551) to 10.87 in the post-test (mean = 10.87, SD = 3.119), as shown by the statistical breakdown based on Table 3. The average for the School B groups improved from 9.55 (mean = 9.55, SD = 2.811) in the pre-test to 10.22 (mean = 10.22, SD = 2.66) in the post-test, demonstrating a similar trend. Stated differently, both the control and experimental groups from Schools A and B showed improvement based on average scores. Table 4 reflects the critical reading comprehension strategies as measured and evaluated by pre-test and post-test statistical analysis.

Critical Reading Comprehension Strategy 1: Knowledge

Table 4 reflects that those 83 learners in School A and 72 learners in School B completed the pre-test and the post-test. The statistics reveal that the participants in the experimental group performed better than those in the control group on the pre-test and post-test, producing respective mean scores of 1.7073 and 1.7805. The pre-test standard deviations of the control group and the experimental group were recorded as 0.54368 and 0.55069, respectively. When considering the data shown in Table 4, the standard deviation observed is smaller than the mean on each occasion, indicating that the data are narrowly distributed around the mean.

In School B, the control group received a mean of 0.7692 for the pre-test and 0.7436 for the post-test. The statistics suggest that participants in the experimental group achieved more correct answers for the pre-test (0.7879) and post-test (0.9091) measuring and evaluating the *knowledge* critical reading strategy.

The experimental group's standard deviation for the pre-test was 0.41515, while that of the control group was 0.42683. When looking at Table 4, the data sets are closely centred around the mean because the recorded range of standard deviation scores is smaller than the means on each occasion. The implementation of the *knowledge* critical reading strategy is observed to have an inverse trajectory when the mean scores of the control groups are considered for the pre-test (0.7692) and post-test (0.7436).

Critical Reading Comprehension Strategy 2: Comprehension

In School A, according to the data displayed in Table 4, the measuring and evaluation of the *comprehension* critical reading strategy produced an increase in the average scores for the control group ($n = 42$) from 1.9048 in the pre-test to 2.1190 in the post-test. The experimental group improved their overall average performance from the pre-test (1.6829) to the post-test (2.0488) by 0.3659. The standard deviation for the control group (pre-test: 1.00752, post-test: 0.96783) and the experimental group (pre-test: 1.08257, post-test: 0.92063) reflects a lower value in each measurement and evaluation process. In other words, in School A, the experimental group exhibited a higher improvement score of 0.1517 compared to the control group following the strategy-based instructional intervention.

The control group ($n = 38$) in School B showed an average score improvement from 2.7632 in the pre-test to 2.8947 in the post-test when measuring and evaluating the *comprehension* critical reading strategy. The experimental group's ($n = 33$) total average performance increased by 0.7575 between the pre-test (2.5758) and the post-test (3.3333). The pre-test standard deviation for the control group was 1.19536, and the post-test standard deviation was 1.20336. The pre-test standard deviation for the experimental group was 1.37000, and the post-test standard deviation was 1.08012. To put this differently, in school B, after the strategy-based critical reading instruction intervention, the experimental group reflected a 0.6260 higher improvement score compared to the control group.

Critical Reading Comprehension Strategy 3: Application

Concerning the measuring and evaluation of the *application* strategy, in School A, the mean scores recorded by the control groups remained constant for the pre-test and the post-test at 0.4545. The experimental group's mean rating (0.1739) also reflected an identical value and, as in the case of the control group, a fixed standard deviation value. Thus, the spread of scores around the mean (0.50369) remained invariable. In addition, since the pre-test and post-test invariable standard deviations for both groups (control group SD = 0.50369, experimental group SD = 0.38322) were established at a higher magnitude than the average score, there is a wider spread of scores around the means.

In School B, the mean ratings recorded by the control group remained low from the pre-test (1.3947) to the post-test

TABLE 4: Measured and evaluated critical reading comprehension strategies.

| Test type | School A | | | School B | | | |
|---|--------------------|--------|----------------|----------|--------|----------------|----|
| | Group type | Mean | Std. deviation | n | Mean | Std. deviation | n |
| Knowledge pre-test and post-test competence scores | | | | | | | |
| Pre-test | Control group | 1.5952 | 0.54368 | 42 | 0.7692 | 0.42683 | 39 |
| | Experimental group | 1.7073 | 0.55874 | 41 | 0.7879 | 0.41515 | 33 |
| | Total | 1.6506 | 0.55069 | 83 | 0.7778 | 0.41866 | 72 |
| Post-test | Control group | 1.4762 | 0.63392 | 42 | 0.7436 | 0.44236 | 39 |
| | Experimental group | 1.7805 | 0.52499 | 41 | 0.9091 | 0.29194 | 33 |
| | Total | 1.6265 | 0.59900 | 83 | 0.8194 | 0.38735 | 72 |
| Comprehension pre-test and post-test competence scores | | | | | | | |
| Pre-test | Control group | 1.9048 | 1.00752 | 42 | 2.7632 | 1.19536 | 38 |
| | Experimental group | 1.6829 | 1.08257 | 41 | 2.5758 | 1.37000 | 33 |
| | Total | 1.7952 | 1.04484 | 83 | 2.6761 | 1.27363 | 71 |
| Post-test | Control group | 2.1190 | 0.96783 | 42 | 2.8947 | 1.20336 | 38 |
| | Experimental group | 2.0488 | 0.92063 | 41 | 3.3333 | 1.08012 | 33 |
| | Total | 2.0843 | 0.93970 | 83 | 3.0986 | 1.16073 | 71 |
| Application pre-test and post-test competence scores | | | | | | | |
| Pre-test | Control group | 0.4545 | 0.50369 | 44 | 1.3947 | 0.75479 | 38 |
| | Experimental group | 0.1739 | 0.38322 | 46 | 1.7879 | 0.73983 | 33 |
| | Total | 0.3111 | 0.46554 | 90 | 1.5775 | 0.76834 | 71 |
| Post-test | Control group | 0.4545 | 0.50369 | 44 | 1.1316 | 0.74148 | 38 |
| | Experimental group | 0.1739 | 0.38322 | 46 | 1.5152 | 0.56575 | 33 |
| | Total | 0.3111 | 0.46554 | 90 | 1.3099 | 0.68851 | 71 |
| Analysis pre-test and post-test competence scores | | | | | | | |
| Pre-test | Control group | 1.3333 | 0.84584 | 42 | 2.3158 | 1.11756 | 38 |
| | Experimental group | 1.4146 | 0.86532 | 41 | 2.3636 | 1.14067 | 33 |
| | Total | 1.3735 | 0.85127 | 83 | 2.3380 | 1.12051 | 71 |
| Post-test | Control group | 1.3810 | 0.90937 | 42 | 2.3947 | 1.32623 | 38 |
| | Experimental group | 1.5610 | 0.94997 | 41 | 2.5455 | 1.12057 | 33 |
| | Total | 1.4699 | 0.92838 | 83 | 2.4648 | 1.22860 | 71 |
| Evaluation pre-test and post-test competence scores | | | | | | | |
| Pre-test | Control group | 2.0952 | 1.37592 | 42 | 0.4000 | 0.81019 | 40 |
| | Experimental group | 2.1951 | 1.20871 | 41 | 0.7778 | 0.98883 | 36 |
| | Total | 2.1446 | 1.28910 | 83 | 0.5789 | 0.91306 | 76 |
| Post-test | Control group | 2.6190 | 1.44749 | 42 | 0.5250 | 0.64001 | 40 |
| | Experimental group | 2.8293 | 1.37663 | 41 | 0.7500 | 0.64918 | 36 |
| | Total | 2.7229 | 1.40828 | 83 | 0.6316 | 0.64997 | 76 |
| Synthesis pre-test and post-test competence scores | | | | | | | |
| Pre-test | Control group | 2.5238 | 1.04153 | 42 | 1.6316 | 0.81940 | 38 |
| | Experimental group | 2.4634 | 1.00244 | 41 | 1.6970 | 0.80951 | 33 |
| | Total | 2.4940 | 1.01661 | 83 | 1.6620 | 0.80965 | 71 |
| Post-test | Control group | 2.6429 | 1.03173 | 42 | 1.6579 | 0.84714 | 38 |
| | Experimental group | 2.6585 | 0.93834 | 41 | 1.5758 | 0.70844 | 33 |
| | Total | 2.6506 | 0.98071 | 83 | 1.6197 | 0.78132 | 71 |

Std., standard.

(1.1316). The experimental group's mean rating also decreased from the pre-test (1.7879) to the post-test (1.5152). The standard deviation values were lower than the associated mean values, implying that the spread of values was clustered closely around the means.

Critical Reading Comprehension Strategy 4: Analysis

According to the information reflected in Table 4, when measuring and evaluating the *analysis* strategy, both the control group and the experimental group in School A recorded a higher mean score for the post-test than the pre-test. The mean score of the control group reflected an increase from 1.333 in the pre-test to 1.3810 in the post-test without the intervention. The experimental group, which received the intervention and was expected to produce a higher post-test score, demonstrated an improved mean from 1.4146 to

1.5610. All the standard deviation ratings reflected a lower value than the associated mean, which indicates indirectly that the spread of values around the means was clustered closely together.

The data collected from School B show that both the control group and the experimental group recorded a higher mean score in the post-test than in the pre-test. The mean score of the control group reflected an increase from 2.3158 in the pre-test to 2.3947 in the post-test without the group having received any intervention. The experimental group, which received the intervention and was expected to produce a higher post-test score, demonstrated an improved mean from 2.3636 to 2.5455. All the standard deviation ratings reflected a lower value than the associated mean, which indicates indirectly that the spread of values around the means was clustered closely together.

Critical Reading Comprehension Strategy 5: Evaluation

Data collected under the *evaluation* strategy in Table 4 indicated that 83 learners ($n = 83$) from School A participated in the measurement and evaluation of the *evaluation* critical reading strategy, which produced a pre-test average score of 2.0952 and a post-test mean of 2.6190 for the control group. The experimental group had a similar pre-test mean of 2.1951, improving to a post-test average of 2.8293.

From School B, 76 learners ($n = 76$) participated in the measurement and evaluation of the *evaluation* critical reading strategy, which produced a pre-test average score of 0.4000 and a post-test mean of 0.5250 for the control group, representing an increased mean value. On the other hand, the experimental group started at a pre-test mean of 0.5250, improving to a post-test average of 0.7500.

Critical Reading Comprehension Strategy 6: Synthesis

Concerning the *synthesis* critical reading strategy, Table 4 relates that in School A, on average, the control group and the experimental group both obtained improved mean scores at the end of the experiment. The control group advanced from a mean score of 2.5238 in the pre-test to 2.6429 in the post-test. The experimental group progressed from a pre-test mean score of 2.4634 to a post-test mean score of 2.685. Furthermore, the data under the *synthesis* strategy reveals that, on average, in School B, the control group obtained an improved mean score at the end of the experiment. The control group improved from a mean score of 1.6316 in the pre-test to 1.6579 in the post-test. Conversely, the experimental group regressed from a pre-test mean score of 1.6970 to a post-test mean score of 1.5758. Since the pre-test and post-test standard deviation scores for both the control group (pre-test: 0.81940, post-test: 0.84714) and the experimental group (pre-test: 0.80951, post-test: 0.70844) were higher than the mean scores, it can be concluded that the spread of scores was wide in relation to the mean score.

Correlation of pre-test and post-test findings to establish the significance of the critical reading strategy intervention

A two-way mixed ANOVA was conducted to investigate the effect of the intervention on the experimental and control groups. The pre-test and post-test constituted the **within-group** variables, and the experimental and control groups represented the **between-group** variables.

The data recorded in Table 5 disclose that 155 learners ($n = 155$) participated in the study, 81 learners formed the control group and 74 learners formed the experimental group. From an all-inclusive perspective, both the experimental group and the control group showed improved performance through the measurements and evaluation of the critical reading strategies applied in the classroom.

This statement is validated by the increase in the control group's mean from 9.88 (pre-test) to 10.11 (post-test). In a similar fashion, the mean values of the experimental group also revealed a mean improvement from 10.03 (pre-test) to 11.07 (post-test). The documented standard deviation scores revealed a lower value than the associated mean score in each relationship, verbalised as the spread of the values being clustered and spread closely in proximity to the mean, which, in turn, increases the reliability of the documented data.

Table 6 provides a holistic representation of the results of the within-group variable and the interaction between the two independent variables. The results indicate, firstly, that there is a significant difference between the pre-test and post-test $F(1,153) = 14.035, p = 0.000, \eta^2_p = 0.084$. Secondly, the evaluation of the mean scores showed that the total post-test score was higher than the pre-test score, which confirms theoretical expectations. Furthermore, there is a significant interaction ($p = 0.019 < 0.05$, which is the significant value criterion) between *time* and *group type*, suggesting that the difference between the pre- and post-test was different for the experimental group compared to the control group $F(1,153) = 5.607, p = 0.019, \eta^2_p = 0.035$.

The test of the between-group effects is reported comprehensively below, and it communicates that there was not a significant difference between the experimental and control groups: $F(1,153) = 1.457, p = 0.229, \eta^2_p = 0.009$.

The F -ratio ($F = 1.457$) reflects the interactions within the control group and the experimental group. The probability value of this magnitude (0.229) is higher than the significant-criterion value of 0.05. This suggests that the interaction between the time of the pre-test and the post-test was insignificant.

TABLE 5: Pre-test and post-test critical reading competence scores.

| Test type | Group type | Mean | Std. deviation | <i>n</i> |
|-----------------|--------------------|-------|----------------|----------|
| Pre-test score | Control group | 9.88 | 2.839 | 81 |
| | Experimental group | 10.03 | 3.519 | 74 |
| | Total | 9.95 | 3.172 | 155 |
| Post-test score | Control group | 10.11 | 2.937 | 81 |
| | Experimental group | 11.07 | 2.849 | 74 |
| | Total | 10.57 | 2.926 | 155 |

Std., standard.

TABLE 6: Test of within-group and between-group effects.

| Source | Type III sum of squares | <i>df</i> | Mean square | F | Sig. | Partial eta squared |
|-----------------------------|-------------------------|-----------|-------------|-----------|-------|---------------------|
| Measure: Performance | | | | | | |
| Within groups | | | | | | |
| Time | 31.438 | 1 | 31.438 | 14.035 | 0.000 | 0.084 |
| Time* Group type | 12.560 | 1 | 12.560 | 5.607 | 0.019 | 0.035 |
| Error (time) | 342.711 | 153 | 2.240 | - | - | - |
| Between groups | | | | | | |
| Intercept | 32 633.486 | 1 | 32 633.486 | 2 006.268 | 0.000 | 0.929 |
| Group type | 23.692 | 1 | 23.692 | 1.457 | 0.229 | 0.009 |
| Error | 2 488.663 | 153 | 16.266 | - | - | - |

df, degrees of freedom; Sig., significance.

Experimental significance

The study investigated the impact of strategy-based instruction on Grade 9 English FAL learners' critical reading comprehension as indicated in Table 7. The control group, without intervention, exhibited non-significant change from pre-test to post-test $t(80) = -1.429, p = 0.157 (p = 0.157 > 0.05)$, indicating no improvement in critical reading competence. This lack of progress may be attributed to the absence of intervention. The wider spread of scores around the mean suggests inconsistent performance in the control group, perpetuating poor reading comprehension among South African learners.

Conversely, the experimental groups showed significant improvement from pre-test to post-test $t(73) = -3.384, p = 0.001 (p = 0.001 < 0.05)$, indicating that strategy-based instruction is efficacious. Scores clustered around the average, indicating consistent and improved performance compared to the control group. These findings suggest that effective strategy-based instruction can enhance critical reading comprehension skills among learners.

Discussion

The findings indicated by the learners' scores for the pre-test critical reading measurement and evaluation tool indicated that most of the learners could not apply strategies that promote critical reading comprehension in the classroom. The pre-test and post-test scores revealed that the learners viewed the concepts of 'reading' and 'critical reading comprehension' as identical. Wilson and colleagues (2004), who state that some learners do not engage critically with academic texts, support this finding.

Alvermann (2002) suggests that learners may perceive themselves as critical readers of texts despite lacking the necessary skills to effectively engage in critical reading. Consistent with Alvermann's assertion, this study found that learners demonstrated a lack of proficiency in applying critical reading strategies based on the results of both pre-tests and post-tests. Subsequently, Alvermann (2002) alludes to the need to enhance the critical reading competence of learners in the classroom as pivotal.

Comber (2006:51) opines that learners must connect the content of texts they read in class to what is going on in their lives. Differently put, learners are expected to embrace their own conceptual perspectives through critical reading comprehension, allowing them to evaluate other aspects of

their lives more critically. Unfortunately, the findings of this study revealed that learners had not yet mastered this specific critical reading strategy, and regrettably, these learners demonstrated a lack of interest in applying lessons learned in class to evaluate their own lives.

The high mean scores achieved for the knowledge and comprehension strategies in the pre-test and post-test findings indicated that most of the learners only knew how to apply basic reading strategies. Burns, Roe and Ross (1999:219) corroborate this finding, stating that literal comprehension is the most fundamental sort of understanding and refers to the use of a fundamental reading technique. In other words, learners process information at face value, directly as it is stated in the text, by applying only basic reading strategies. The learners did not read between the lines. Additionally, this finding shows that learners' critical reading practices in class run counter to Wallace's (2003) claim that higher-order comprehension, also known as inferential comprehension or deep-level understanding, is practised in classrooms. Higher-order comprehension gives the reader a chance to internalise, analyse and evaluate the context of the text from a comprehensive but critical perspective.

Furthermore, and more significantly, the findings of this study showed that after the experimental group had participated in the critical reading strategy intervention programme, their critical reading comprehension post-test results improved significantly ($p = 0.001 < 0.05$) compared to the insignificant improvement ($p = 0.157 > 0.05$) shown by the control group, who did not participate in the intervention. For this reason, the results pertaining to the impact of the intervention demonstrated that the learners' critical reading comprehension competence could be improved by the introduction and implementation of this strategy intervention programme.

'Reading is all about comprehension' (Pretorius & Murray 2019:198). In other words, it is important for learners that teachers teach them how to use strategies that will assist them in extracting meaning from text. Explicit explanation of and instruction in reading strategies, as performed in the present study, can improve learners' reading comprehension (Yapp et al. 2021). Furthermore, asking questions during reading and making predictions, which were among the strategies used by the present inquiry, can enhance reading comprehension (Pressley 2002).

Lastly, the study demonstrated that explicit explanation and instruction of reading strategies, as implemented in the intervention programme, can improve learners' reading comprehension.

TABLE 7: Paired-samples test to establish the overall experimental significance.

| Group type | | Paired differences | | | | | <i>t</i> | <i>df</i> | Sig. (2-tailed) |
|--------------------|--------------------------------|--------------------|----------------|-----------------|---|--------|----------|-----------|-----------------|
| | | Mean | Std. deviation | Std. error mean | 95% confidence interval of the difference | | | | |
| | | | | | Lower | Upper | | | |
| Control group | Pre-test score–post-test score | -0.235 | 1.447 | 0.164 | -0.561 | 0.092 | -1.429 | 80 | 0.157 |
| Experimental group | Pre-test score–post-test score | -1.040 | 2.645 | 0.308 | -1.653 | -0.428 | -3.384 | 73 | 0.001 |

df, degrees of freedom; Std., standard; Sig., significance.

Limitations of the study

The research was confined to two high schools located in the Gauteng province of South Africa. It specifically targeted Grade 9 English FAL learners, thus constraining the applicability of the findings to a broader context. The study solely examined the effectiveness of teaching strategies in enhancing critical reading comprehension among learners without considering the instructional methods employed by teachers or the reading habits encouraged by parents, which could have offered a more comprehensive sociocultural insight into the learners' comprehension abilities. Additionally, the use of pre-tests, post-tests and interventions could be seen as a limitation as they were only administered to the experimental group, serving as a controlled variable. This approach aimed to assess the intervention's impact on the experimental group while the control group proceeded with regular academic activities.

Conclusion

The findings of this study showed that learners' critical reading comprehension and reading strategy application are directly associated. The experimental group's critical reading comprehension pre- and post-test scores, which showed a significant improvement for the experimental group following the strategy intervention programme, served as evidence of this. This lends credence to the premise that teaching reading strategies significantly improves critical reading comprehension, which in turn improves not only critical reading competence but also the learning process. Because of this, this study recommends that the emphasis should not only be on the significance to learners of learning reading strategies, but there should be a balance between instruction and learning. In other words, emphasis should also be placed on the importance of the instruction approach used by the teacher to instruct learners on how to use these strategies intentionally and differentiate between the applications of different strategies to improve critical reading comprehension in the English FAL classroom.

Lastly, it is crucial that we amass, understand and implement strategies that are likely to increase learners' critical reading comprehension competence and help alleviate the reading paucity encountered by English FAL learners, not only in South Africa but also internationally.

Acknowledgements

Competing interests

The author declares that there are no financial or personal relationships that may have inappropriately influenced the writing of this article.

Author's contribution

F.M.O. is the sole author of this article.

Ethical considerations

An application for full ethical approval was made to the Faculty Committee for Research Ethics - Humanities (FCRE-HUM) and ethics consent was received on 20 November 2017. The ethics approval number is FCRE/APL/STD/2017/20. The research was executed responsibly. Participants were protected against harm and informed consent was obtained from all participants and parents or guardians to ensure information are treated confidentially. The researcher treated all shared information with anonymity, and confidentiality. Participation was voluntary.

Funding information

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Data availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Disclaimer

The views and opinions expressed in this article are those of the author and the product of professional research. It does not necessarily reflect the official policy or position of any affiliated institution, funder, agency or that of the publisher. The author is responsible for this article's results, findings and content.

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