

Reading comprehension and strategy awareness of Grade 11 English second language learners

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The aim of this study was to examine the reading strategies used by Grade 11 English Second Language (ESL) learners and the possible effects of reading instruction on their reading comprehension and strategy awareness. A quasi-experimental pre-test and post-test control group design was used. The participants included a total of 60 Grade 11 learners from a high school. The results of this study indicate that (1) learners who received reading strategy instruction scored both statistically and practically significantly higher marks on the reading comprehension test than those in the control group and (2) explicit instruction in the use of reading strategies was essential to bring about the increased use of reading strategies of learners in the experimental group. The study has implications for learners, teachers, university students and lecturers.

Introduction

In recent years, there has been an increased focus on reading instruction in primary, secondary and higher education (Lei 2010). The literature has shown that comprehension strategy instruction, including multiple reading strategies, have been justified in being beneficial to helping learners become strategic readers and improve their reading comprehension (Klapwijk 2012; Medina 2011; Fan 2010; Antoniou & Souvignier 2007). Thus, it is necessary to provide learners with a reading strategy instruction which focuses on teaching reading strategies that can help them become strategic readers. Strategic reading, according to Alfassi (2010) requires that learners intentionally engage in planned actions under their control, in the manner that proficient readers do when they encounter difficulty in comprehending a text. Alfassi further points out that those strategic readers must become cognisant of their performance limitations, intentionally weigh their options and wilfully execute compensatory procedures. Thus, reading strategies instruction is directed towards teaching learners a repertoire of reading strategies that will allow them to develop a sense of conscious control of their cognitive processes.

In a South African context, the need for a reading strategy instruction should be seen against the poor reading performance of the learners at primary, high school and tertiary level. According to Pretorius (2002), reading is a powerful learning tool, a means of constructing meaning and acquiring new knowledge. Moreover, reading is the cornerstone of instruction for all learners regardless of their ability level because it sets the foundation for future progress and success in virtually all other facets of life (Scott 2010; Luckner & Handley 2008). However, poor reading comprehension is cited as a fundamental feature of academic underperformance in South Africa (Pretorius 2002; Granville 2001; Dreyer 1998). Many learners in the high schools demonstrate a low level of strategy knowledge and lack of metacognitive control (Dreyer 1998; Strydom 1997). According to Nel, Dreyer and Kopper (2004:95), many South African students enter higher education underprepared for the reading demands that are placed upon them. Analysing the reading assessment profiles of a group of first-year university students at Potchefstroom, Nel, Dreyer and Kopper (ibid: 95) revealed that those students experienced problems across all aspects of the reading process (i.e. vocabulary, fluency, reading comprehension and reading strategy use). Yet, there is little evidence to suggest that learners at any level will acquire the reading skills and strategies that can improve their reading comprehension if they have not been taught (Tannenbaum, Torgesen & Wagner 2006).

The literature has revealed that awareness and monitoring of one's comprehension processes are important aspects of skilled readers (Alexander & Jetton 2000; Makhtari & Reichard 2002). The same authors further point out that such awareness and monitoring processes are often referred to in the literature as metacognition, which can be thought of as the knowledge of the reader's cognition about reading and the self-control mechanisms they exercise when monitoring and regulating text comprehension. One of the objectives of the current study is to explore whether

reading strategies awareness is a better predictor of reading comprehension. The results of a similar study conducted by Ilustre (2011) in the Philippines showed that amongst the three subscales of metacognitive reading strategies, only problem solving strategies correlated positively with text comprehension.

Purpose of the study

In order to meet the reading needs of learners, educators are pressed to develop both effective instructional means for teaching reading comprehension and the use of reading strategies. Thus, this study seeks to examine the contribution of reading strategy instruction to the reading comprehension and strategy awareness of Grade 11 ESL learners with a view to offering suggestions for the development of effective reading strategy instruction so as to improve learners' reading comprehension and strategy awareness skills. Specifically, the study seeks to address the following research questions:

1. What does the reading comprehension and reading strategy use profile of the Grade 11 ESL learners portray?
2. Do learners in the experimental group who received strategic reading instruction attain statistically and practically significantly higher scores on the reading comprehension test and do they differ significantly in terms of their use of reading strategies?

Current theoretical perspective

How readers extract meaning from a text has long been a focus of attention because the process of extracting meaning gives learners invaluable information about readers' cognitive processes during reading (Salataci & Akyel 2002). In addition, studies conducted on reading instruction and reading strategies indicate that strategy instruction with a focus on comprehension monitoring can help less skilled readers overcome their difficulties in reading (Franco-Fuenmayor, Kandel-Cisco & Padron 2008; Salataci & Akyel 2002; Pretorius 2002; Grabe & Stoller 2002; Granville 2001; Anderson 1999). In addition, Oxford (1990) points out that it appears that successful language students have the ability to orchestrate and combine particular types of strategies in effective ways according to their own learning needs. Thus, strategy teaching is an important part of teaching a second language and constructing meaning is the goal of comprehension (Dalton & Proctor 2007). In addition, McKeown, Beck and Blake (2009:28) point out that recent research on comprehension has certainly provided increased understanding of the comprehension process and broad and general knowledge of what makes for effective instructional practice. According to Antoniou and Souvignier (2007), the main aims of strategy training are monitoring understanding, enhancing understanding, acquiring and actively using knowledge, and developing insights. In addition, Cubukcu (2007) points out that to be effective, students must have a wide array of reading strategies at their disposal and know where, when and how to use these strategies.

The literature on strategy instruction has shown that there are two different approaches to teaching reading strategies.

These are explicit instruction and implicit instruction. According to Hall (2009), explicit instruction is a systematic instructional approach that includes a set of delivery and design procedures derived from effective schools research merged with behaviour analysis. Hall further points out that there are two essential components to well-designed explicit instruction:

1. Visible delivery features are group instruction with a high level of teacher and student interactions.
2. This concerns the less observable, instructional design principles and assumptions that make up the content and strategies to be taught. According to Van Keer (2004), explicit reading strategies instruction and engaging learners in interaction with the text promotes learners' reading comprehension ability.

In addition, Van Keer states that even when children do not use effective comprehension strategies on their own, explicit reading strategies instruction is a feasible tool for teaching learners to apply them successfully. The current study has been triggered by this view because it seeks to improve the reading comprehension and strategy use of disadvantaged learners. The literature reveals that explicit instruction in reading comprehension is the widely recommended method of improving learners' reading comprehension and strategy use (Franco-Fuenmayor, Kandel-Cisco & Padron 2008).

On the other hand, the US Department of Education (2008) points out that implicit learning is acquisition of knowledge about the underlying structure of a complex stimulus environment by a process which takes place naturally, simply and without conscious operations. In addition, Dalton and Proctor (2007) point out that implicit reading strategy instruction refers to a reading environment that provides the learner with a variety of embedded features that are designed to support individual learning needs whilst being sensitive to the interactive nature of the reading process. Dalton and Proctor further point out that those learners who struggle with creating meaning are supported in an apprentice model of reading strategy instruction where scaffolds decrease as learners' understanding and self-regulation improves.

Problem statement and research objectives

The role that reading comprehension plays in the process of learning is widely documented (Shanahan, Callison, Carriere, Duke, Pearson, Torgesen, *et al.* 2010; Luckner & Handley 2008; Coleman 2003). These studies and many other similar studies point to the fact that reading comprehension forms the basis for the learning process. Thus, learners who read without comprehending what they read have fewer chances of succeeding academically than learners who read with comprehension. However, studies conducted in South Africa at primary, high school and tertiary level reveal poor reading comprehension by learners. For example, a pilot study was conducted by Dreyer (1998) in a multilingual classroom in the North West Province amongst Grade 8 learners on a reading comprehension test. The results showed a failure rate of approximately 75%.

Systematic Evaluations conducted recently on the reading performance of learners in South Africa showed no improvement. The Systematic Evaluations conducted by the Department of Education, provincial Departments of Education as well as international bodies, show that learners in South African schools performed poorly when tested for their ability to read at age-appropriate levels (National Reading Strategy 2008:5). Specifically, the results of the Systemic Evaluation held in 2005 amongst the Intermediate Phase learners, showed that 14% of learners were outstanding in their language competence; 23% were satisfactory or partly competent, but a large majority of 63% were below the required competence for their age level (South African National Reading Panel 2008:6)

The above-mentioned reading comprehension results are a cause for concern. Specifically, the current study has been triggered by the above-mentioned state of affairs as far as reading comprehension is concerned in South Africa. Amongst the factors that improve learners' reading comprehension is training in the use of reading strategies. In the literature review the benefits of training learners to be strategic readers has been highlighted. Thus, the current study seeks to examine the effect of reading strategies instruction in order to inform instructional practice in reading comprehension.

Rationale of the study

Based on the reading situation highlighted under the problem statement, the current study is necessary so as to improve the reading comprehension of learners by training them in the use of reading strategies. If teachers are made aware of the benefits of reading strategies instruction, they are likely to improve their instructional practice and as a result improve learning outcomes.

Research method

Design

The research approach used in this study was quantitative. This kind of research approach usually involves collecting and converting data into numerical form so that statistical calculations can be made and conclusions drawn. According to MacMillan and Schumacher (2001), designing quantitative research involves choosing subjects, data collection techniques (such as questionnaires, observations or interviews), and procedures for gathering data and implementing treatments. The quantitative research approach was suitable for this study as its design was quasi-experimental, it analysed data through statistics and had a treatment group that was used to measure the impact of the reading strategies instruction.

A quasi-experimental pre-test and post-test control group design was used in this study. According to Moore (2008), a quasi-experimental study is a type of evaluation which aims to determine whether a programme or intervention has the intended effect on a study's participant. In this study there were both a control and experimental groups. The reading

comprehension test scores for each group were compared before and after the study. The reading comprehension scores were also compared for both groups before and after the study.

Subjects

The accessible population was comprised of 60 Grade 11 Xhosa-speaking learners taking English as a Second Language (ESL) in one high school in East London in the Eastern Cape. This school was selected by means of convenience sampling. In convenience sampling, the selection of subjects from the population is based on easy availability or accessibility. The major disadvantage of this technique is that researchers have no idea how representative the information collected about the sample is to the population as a whole. However, the information can still provide some fairly significant insights and be a good source of data in exploratory research (Ary, Jacobs & Razavieh 2005). The subjects were in two intact classes in order to prevent disruption to the normal teaching routine at the school. One class was randomly assigned, using a random numbers table, to the experimental group ($N = 30$) and the other to the control group ($N = 30$). The ages of the subjects ranged from 18–22 and the sample consisted of both boys ($N = 19$) and girls ($N = 41$).

Instrumentation

The following instruments were used in this study:

- The Reading Performance Test in English Advanced Level (Roux 1996) was used to determine the students' reading comprehension in English within the range of Senior Secondary Performance Levels (i.e. Grades 10, 11 and 12). This standardised test consists of 50 items. Questions are based on prose, passage, advertisements, a film review, a cartoon and two close-test passages. All the questions are in multiple-choice form consisting of four options per item. This test was used as a pre-test and a post-test.
- A Reading Strategies Questionnaire based on the work of Oxford (1990) and Pressley and Afflerbach (1995), was used to determine learners' use of reading strategies. This test was also used as a pre-test and a post-test.

Data collection procedure

All subjects took the tests (e.g. reading strategies questionnaire and reading comprehension tests) during their regular classroom periods and both groups were taught by the same teacher. All participants received uniform instructions on how to complete the questionnaire, which was taken on the first day by both groups. The Reading Strategies Questionnaire was followed by the reading comprehension test in English which was used as a pre-test and was administered to both groups (control and experimental) on the following day. The experimental group received the reading strategy instruction which lasted for three months. For the control group there was no strategy instruction. Their lessons were presented in the normal way (i.e. no strategy development or practice was used). In a study conducted by Dreyer (1998:23), she stated that the three-month interval between administration

is deemed long enough to control any short-term memory effects. Considering that the subjects were not provided with the correct answers after the pre-test, even were they to remember how they had answered a question the first time, they had no way of knowing whether that answer was correct. At the end of the third month both groups (control and experimental) were given the same tests (reading comprehension test and strategy questionnaire) as post-tests. At the end of the study, the control group received the same reading strategy instruction and amount of instructional time that was received by the experimental group during the study.

Teaching procedure

Each session over the course of the three months included the following stages similar to those of Wilhelm (2001):

1. *How* to use the strategy.
2. *Why*, *when* and *where* the strategy should be used in actual reading.
3. Teacher modelling. This entailed the use of Think-Aloud on how to perform the strategy in the actual context of reading.
4. Teacher scaffolding. This entailed the use of strategies on a temporary basis so that once the learners were able to accomplish the task successfully, the scaffold was gradually decreased or removed. Learners practised what they were capable of doing on their own and the teacher intervened only when support was needed.
5. Independent learner practice. Learners practised the use of strategies independently and verified the use of procedures.
6. Integrated use with other materials. The teacher gave ample practise with school materials and integrated the use of Think-Aloud with other lessons and content reading. The aim was for learners to apply these strategies independently and think in their heads whenever they encounter a text.

The strategies to be developed were presented in the following format:

- 'Before Reading' (e.g. making inferences and predicting what is to come in a text)
- 'During Reading' (e.g. guessing the meaning of words from the context, identifying the main idea in a text and rejecting or confirming predictions and inferences)
- 'After Reading' (e.g. summarising).

The major focus in the reading strategy instruction was on explaining the main features of a particular strategy and explaining why that strategy should be learned (i.e. the potential benefits of use). The benefit of use was linked to the learners' reading profiles. In this way, students could see the necessity of reading strategy use, as well as the link to their reading comprehension.

An example of the instructional procedure followed in this study is available in **Appendix A**.

Data analysis

A *t*-test was used in this study. The *t*-test is one type of inferential statistics. It is used to determine whether there is a significant difference between the means of two groups. In the current study the *t*-test was used to determine whether the mean scores of the experimental and control group differed reliably from each other (cf. Tables 1 and 2). Cohen's effect size was used to calculate the difference between two means. Cohen (1977) uses the following scale for the *d*-values:

Small effect	$d = 0.2$
Medium effect	$d = 0.5$
Large effect	$d = 0.8$

Results

In terms of reading strategy use, the results (pre-test) indicated that there were no statistically significant or practically significant differences between learners in the experimental and control groups (cf. Table 1).

Specifically, the results of the reading strategy analysis indicated that the learners in the experimental group and the learners in the control group did not significantly differ in the use of the strategies at the before-reading, during-reading and after-reading stages. The post-test results, however, indicated that the learners in the experimental group used certain strategies statistically ($p < 0.05$), as well as practically, significantly (small to large effect sizes), more often than the learners in the control group (cf. Table 2).

The post-test results cited in Table 2 revealed an improvement in the frequency of usage of the reading strategies by the learners in the experimental group. During the pre-reading stage, the frequency of use of the following reading strategies improved 'I briefly skim the text before reading' (experimental group pre-test – 2.99; post-test – 3.60) and 'I often look for how the text is organised and pay attention to headings and sub-headings' (experimental group pre-test – 2.55; post-test – 2.98). During reading strategies and after reading strategies also showed some improvement in terms of the frequency of usage of reading strategies during those stages.

The pre-test reading comprehension scores of the Grade 11 ESL learners in the experimental and control groups indicated that there was not a statistically significant difference in their mean scores on the reading comprehension test (cf. Table 3).

The pre-test reading comprehension scores indicated that both experimental and control groups scores were weak and below 50% (experimental group – 37.53; control group – 36.73). Their weak reading comprehension may have had a negative effect on their performance in the language class and also in other content areas. The situation is true if one considers that reading comprehension has come to be the essence of reading (Tannenbaum, Torgesen & Wagner 2006), essential not only to academic learning in all subjects areas but also to professional success and to lifelong learning (Pritchard, Romeo & Muller 1999; Rings 1994; Strydom 1997).

TABLE 1: The pre-test reading strategy use profile of Grade 11 ESL learners: Experimental group versus control group.

Strategies	Experimental (Pre-test) (N = 30)		Control (Pre-test) (N = 30)	
	Mean	SD	Mean	SD
I briefly skim the text before reading.	2.99	0.66	2.99	0.58
I skim/scan to get the main idea.	2.98	0.71	3.00	0.70
I pay greater attention to important information than other information.	2.66	0.50	2.68	0.54
I try to relate the important points in the text to one another in an attempt to understand the entire text.	2.28	0.58	2.44	0.60
While I am reading, I reconsider and revise my prior questions about the text based on the text's content.	2.23	0.54	2.17	0.56
While I am reading, I reconsider and revise my back-ground knowledge about the subject based on the text's content.	1.70	0.60	1.75	0.57
I plan how I am going to read a text.	2.11	0.60	2.07	0.58
I often look for how the text is organised and pay attention to headings and sub-headings.	2.55	0.70	2.44	0.73
I usually make predictions as to what will follow next.	1.99	0.48	2.00	0.54
While I am reading, try to determine the meaning of unknown words that seem critical to the meaning of the text.	2.11	0.58	2.10	0.52
I try to underline when reading in order to remember the text.	3.40	0.71	3.38	0.64
When appropriate, I try to visualise the descriptions in the text that I am reading in order to remember the text.	2.11	0.59	2.19	0.61
I summarise or paraphrase the material that I am reading in order to remember the text.	3.52	0.63	3.54	0.64
When reading, I ask myself question about the text content to better remember the text.	1.98	0.44	1.99	0.50
When I think that I am not comprehending a text, I change my reading strategies (e.g. re-reading).	2.39	0.66	2.37	0.68
As I am reading, I evaluate the text to determine whether it contributes to my knowledge / understanding of the subject.	2.34	0.54	2.34	0.53
After I have read a text, I review it.	3.35	0.63	3.34	0.69
After I have read a text, I try to interpret what I have read.	2.87	0.71	2.79	0.78
After I have read a text, I evaluate what I have read.	2.33	0.66	2.19	0.66
While reading, I jump forward and / or backward in the text to find the important information.	2.12	0.49	2.14	0.53
While reading, I distinguish between information I already know and new information.	2.00	0.54	2.10	0.56
I try to anticipate information in the text.	2.13	0.63	2.20	0.69
As I read along, I check whether I anticipated information correctly.	2.15	0.61	2.19	0.64
I set goals for reading (e.g. studying for a multiple-choice test, reading for a research paper).	2.39	0.71	2.26	0.69
I search out information relevant to my reading goals.	2.99	0.66	2.89	0.67
I evaluate whether what I am reading is relevant to my reading goals.	2.20	0.56	2.20	0.56
I vary my reading style depending on my reading goals.	1.99	0.53	2.00	0.5
After I have read a text I summarise it.	3.56	0.68	3.48	0.69

Values are given as means ($n = 30$).

Practical significance: $d = 0.2$ (small effect size); $d = 0.5$ (medium effect size); $d = 0.8$ (large effect size).
SD, standard deviation.

An analysis of the post-test reading comprehension scores of Grade 11 ESL learners in the experimental and control groups indicated that learners in the experimental group achieved statistically significantly ($p < 0.05$) higher mean scores on the reading comprehension test in comparison to the Grade 11 ESL learners in the control group (cf. table 2).

Discussion of results

The results of this study indicate that a well-developed reading strategy instruction programme can have a strong positive effect on the Grade 11 ESL learners' reading comprehension and reading strategies development. In other words, the results indicate that reading strategy instruction can and does make a contribution in increasing the reading comprehension and reading strategy choice. This finding is consistent with other reported research (e.g. Van Keer & Verhaeghe 2005; Lau & Chan 2003; Alfassi 1998; Dreyer 1998; Kern 1989).

The learners in the experimental group improved their performance in the comprehension test significantly after the intervention, whereas the learners in the control group did not improve their performance on the comprehension test. Thus, the findings portray the intervention as a viable method for enhancing the reading comprehension of the Grade 11 ESL learners. The findings in this study support the previous studies on the effect of reading strategy instruction on learners' reading comprehension (Alexander & Jetton

2000; Dale, Duffy, Roehler & Pearson 1991; Glaser 1990; Wittrock 1998).

To determine whether the instruction affected the use of the reading strategies, the frequencies with which the participants used reading strategies before and after instruction were compared in both groups. Findings also revealed that explicit instruction in the use of reading strategies was essential to bring about increased use of reading strategies for learners in the experimental group. Considering that the more the strategies were used the better the results for students in the experimental group demonstrated that there was a need to promote strategy awareness and application in the learning and teaching of the English language. Specifically, the following reading strategies were utilised more frequently by learners in the experimental group:

- I briefly skim the text before reading.
- I often look for how the text is organised and pay attention to headings and sub-headings.

These results are congruent with previous research confirming the positive effect of explicit strategies instruction on reading comprehension achievement (e.g. Li 2010; Cubukcu 2007; Van Keer & Verhaeghe 2005; Pressley *et al.* 1989). The results of this study also indicated that the learners' ability to use reading strategies is the most critical factor determining their reading comprehension. Thus, the close relationship between strategy use and reading comprehension provided support for the possibility that educators should enhance learners'

TABLE 2: The post-test reading strategy use profile of Grade 11 ESL learners: Experimental group versus control group.

Strategies	Experimental (Post-test) (N = 30)		Control (Post-test) (N = 30)		p -Value	d-Value
	Mean	SD	Mean	SD		
I briefly skim the text before reading.	3.60	0.71	2.98	0.67	*	0.87
I skim / scan to get the main idea.	3.54	0.80	3.20	0.74	*	0.42
I pay greater attention to important Information than other information.	3.03	0.77	3.02	0.65	-	-
I try to relate the important points in the text to one another in an attempt to understand the entire text.	2.40	0.60	2.44	0.54	-	-
While I am reading, I reconsider and revise my prior questions about the text based on the text's content.	2.40	0.60	2.41	0.60	-	-
While I am reading, I reconsider and revise my background knowledge about the subject based on the text's content.	2.54	0.61	2.00	0.63	*	0.85
I plan how I am going to read a text.	2.40	0.56	2.48	0.67	-	-
I often look for how the text is organised and pay attention to headings and sub-headings.	3.00	0.70	2.98	0.69	-	-
I usually make predictions as to what will follow next.	2.88	0.57	2.00	0.51	*	1.50
While I am reading, I try to determine the meaning of unknown words that seem critical to the meaning of the text.	3.05	0.66	2.81	0.61	*	0.36
I try to underline when reading in order to remember the text.	3.51	0.66	3.49	0.54	-	-
When appropriate, I try to visualise the descriptions in the text that I am reading in order to remember the text.	2.40	0.61	2.42	0.54	-	-
I summarise or paraphrase the material that I am reading in order to remember the text.	3.65	0.58	3.58	0.56	-	-
When reading, I ask myself questions about the text content to better remember the text.	3.4	0.74	2.96	0.75	*	0.65
When I think that I am not comprehending a text, I change my reading strategies (e.g. re-reading).	3.00	0.64	3.01	0.60	-	-
As I am reading, I evaluate the text to determine whether it contributes to my knowledge / understanding of the subject.	3.00	0.61	3.00	0.57	-	-
After I have read a text, I review it.	3.42	0.53	3.34	0.60	-	-
After I have read a text, I try to interpret what I have read.	3.48	0.60	3.3	0.55	*	0.30
After I have read a text, I evaluate what I have read.	3.01	0.61	2.99	0.69	-	-
While reading, I jump forward and / or backward in the text to find the important information.	3.54	0.75	3.30	0.57	*	0.32
While reading, I distinguish between information I already know and new information.	3.00	0.60	2.90	0.51	-	-
I try to anticipate information in the text.	3.20	0.77	2.88	0.60	*	0.41
As I read along, I check whether I anticipated information correctly.	3.00	0.56	2.32	0.49	*	1.21
I set goals for reading (e.g. studying for a multiple-choice test, reading for a research paper).	3.82	0.68	3.00	0.71	*	1.15
I search out information relevant to my reading goals.	3.38	0.57	3.44	0.56	-	-
I evaluate whether what I am reading is relevant to my reading goals.	3.56	0.68	3.29	0.73	*	-
I vary my reading style depending on my reading goals.	3.12	0.67	2.76	0.51	*	-
After I have read a text I summarise it.	3.62	0.58	3.22	0.57	*	-

Values are given as means ($n = 30$).

Practical significance: $d = 0.2$ (small effect size); $d = 0.5$ (medium effect size); $d = 0.8$ (large effect size).

SD, standard deviation.

*, $p < 0.05$.

TABLE 3: The reading comprehension test profile of Grade 11 ESL learners: Experimental group vs. control group.

Variables	Experimental (Pre-test) (N = 30)		Control (Pre-test) (N = 30)		Experimental (Post-test) (N = 30)		Control (Post-test) (N = 30)		p-Value	d-Value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
English reading comprehension	37.53	15.80	36.73	13.42	50.40	16.85	40.86	16.13	***	0.56

Values are given as means ($n = 30$).

Practical significance: $d = 0.2$ (small effect size); $d = 0.5$ (medium effect size); $d = 0.8$ (large effect size).

SD, standard deviation.

*, $p < 0.05$.

reading comprehension through explicit reading strategies instruction.

Implications

There are a number of practical implications for the above findings and discussion. The primary goal of reading instruction is to improve learners' reading comprehension. This study has revealed that explicit instruction in reading strategies can improve learners' reading comprehension. Thus, teachers at primary high school and tertiary institutions should teach learners how to use reading strategies in order to improve their reading comprehension. The literature has revealed that the situation at tertiary institutions demands knowledge of reading strategies in order to be successful as

learners are exposed to huge volumes of reading material. The results of this study suggest that explicit instruction in reading strategies can improve the learners' reading comprehension. This suggests that teachers need to design reading strategy instruction that focuses on explicit instruction. The results of the study have shown that those learners who use a wide range of reading strategies comprehend the texts they read better than those who use limited reading strategies. This requires that teachers should help learners identify their reading strategies. This could be achieved by using reading strategies inventories. Such inventories are likely to inform the teachers and learners as to which reading strategies learners currently use. Having that information will assist the teachers in designing reading strategies instruction that focuses on reading strategies that are new to the learners.

Conclusion

In the above discussion an attempt was made to address the two research questions on which the study is based. The most important outcome of this study is that the use of reading strategy instruction and learners' reading strategy awareness play a significant role in improving their reading comprehension. In other words, learners who receive strategy training generally read better than those who do not. As for the relationship between perceived strategy use and reading comprehension, this study revealed that strategy use did positively affect reading comprehension. Thus, teachers should assess learners' awareness of strategy use, raise awareness of the importance of strategic reading and of the repertoire of strategies available to aid reading comprehension.

The study further revealed the importance of training students in the use of reading strategies. The literature has shown that strategic awareness and monitoring of the comprehension process are critically important aspects of skilled reading. As a result of the reading strategy instruction, some strategies were utilised significantly more frequently by learners in the experimental group after the intervention. Thus, this study provided the English Second Language teachers with a better understanding of the benefits of reading strategy instruction.

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Competing interests

The author declares that he/she has no financial or personal relationship(s) which may have inappropriately influenced him/her in writing this paper.

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Appendix A

Predicting what is to come in a text

Presentation

In the introductory session, the teacher and students brainstorm the meaning of 'prediction'. The teacher then explains to the students the meaning of 'prediction'. He further explains the rationale for use of predictions, how, when and where to use them, how to evaluate use of the strategy (prediction) and how to apply it to other tasks and contexts.

Description of the teaching procedure

The teacher works with the entire class and models how making predictions works before, during and after reading. The teacher records the learners' responses on a large chart paper. The prediction chart, as a framework, consists of two headings: Predictions and Support. It aims at organising thinking and helps learners sort out whether predictions come from clues in the text or their own experiences. As

reading proceeds, the teacher stops once or twice and invites learners to predict. The teacher then tells the learners that if after reading they notice that the predictions made earlier are not correct, they will be forced to change their predictions after reading. The teacher then advises the learners to look for 'clues' in the text as they make their predictions.

Evaluating students' strategy development

The teacher then introduces another text and asks the learners to mark the words in the text that support or help them correct their predictions. The learners' attention is drawn to *clues* that lead to their predictions. Additional questions will include the following: 'Did you need to change your prediction? Where? Why? How did you know your prediction needed changing?' After finishing the story, the teacher invites the learners to return to the prediction chart to confirm or adjust their ideas. The adjustments are then written on the chart with a different colour marker pen so that the learners can easily compare initial predictions with what actually occurred in the story.