

## DOES READING STRATEGY INSTRUCTION IMPROVE STUDENTS' COMPREHENSION?

Christianah Oyetunji  
Limkokwing University of Creative Technology, Gaborone, Botswana

---

*This paper describes the effect of reading strategy instruction on Second Language (L2) students' reading comprehension in a Botswana College of Education. The intervention programme was implemented based on the observation that some trainee teachers failed to improve on their L2 proficiency after spending a year in the L2 classroom. Prior to the intervention, difficulty in reading and comprehending had been identified as one of the contributing factors to their failure to improve on their proficiency level. A reading comprehension test was used to collect data from participants who were trainee teachers at a College of Education in Botswana before and after the intervention. The six-week intervention programme focused on seven reading strategies, namely the use of background knowledge, self-questioning, inferencing, rereading, drawing conclusions, identifying main ideas and summarising. The findings suggest that strategy training can increase L2 students' reading comprehension. Based on the findings, it is recommended that strategy training be introduced into the L2 syllabus of the primary school teacher trainees in all Botswana Colleges of Education.*

Key words: reading strategy, reading strategy intervention, explicit instruction, L2 reading comprehension.

### INTRODUCTION

Reading is a powerful tool for academic success because it provides students with access to information (English, 2011). However, in many Botswana schools reading is not popular among students (Tella & Akande, 2007). Good reading habits are not instilled in students because many of their teachers are not proficient in reading and their teaching methods do not promote reading (Molelo & Cowieson, 2003). From my experiences as a lecturer at a College of Education in Botswana, it became evident that the majority of my students seemed to struggle with reading. They read slowly and with effort and do not engage in any pleasure reading outside of their formal study requirements. The schools from which they come do not seem to have equipped them with the requisite reading practices and skills that would enable them to cope with the reading required at tertiary level. Yet, African society relies on the school to nurture and develop a reading culture (Ofeimum, 2010).

The responsibility conferred on the school would require the school to address issues related to reading instruction and development, especially when many students are struggling to achieve effective learning through texts (Irvin, Buehl & Radcliffe, 2007) which is one of the major causes of academic failures in schools, especially at college level (Horning, 2007). While at the Training College, I continuously grappled with the challenge of trying to

improve the students' reading levels. However, since the 1980s when strategy instruction first came under the research spotlight, there have been several studies (Yanez, 1987; Celce-Murcia, 1991; Collins, 1991; Trabasso and Bouchard, 2002; McNamara, 2004; McNamara, 2007) that indicate that reading strategy instruction improves comprehension, thus giving a ray of hope to students who are failing to learn from print and to the teachers who work with such students. The aim of this study was to find out the effect of explicit reading strategy instruction on students' reading performance.

## CONTEXT OF THE STUDY

Setswana is the most dominant language in Botswana. It is spoken by at least 80% of the Botswana population as mother tongue and as a second language by another 10% (Nyati-Ramahobo, 1997). For this reason, it is regarded as the country's *lingua franca* because the majority of the members of other linguistic groups in the country can speak it fairly well (Nkosana, 2009). Both English and Setswana are used in education, government, media and all other social domains. However, Setswana is used as a medium of instruction only at the initial levels, Standards 1-2 (Grades 1-2), of primary education. English, the official language, is taught as a subject and used as a medium of instruction from Standard 3 up to university level (Mooko, 2008) while Setswana is offered as a subject from primary school up to university.

Despite the Botswana government's efforts to promote literacy through free basic education, the establishment of a well-organised literacy programme (Legwaila, 1994) and provision of the necessary infrastructure in most villages and cities, Arua and Lederer's (2003) findings indicate that secondary school students have not developed a reading interest. According to them, the percentage of students reading frequently or even occasionally is not as high as expected. They maintain that teachers at the University of Botswana are concerned about their first-year students' inability to cope with basic reading and their lack of adequate reading skills. Students' lack of interest in reading and their failure to cope with basic reading at the university suggest that more work needs to be done in literacy acquisition for the country to become 'an educated and informed nation in 2016' as planned (Presidential Task Force, 1997).

As a teacher of English in a College of Education, I noticed that several students did not seem to improve much on their Second Language (L2) proficiency level – even after spending a year in the L2 college lecture halls. It seems like many students at College lack strategic reading skills and thus struggle academically because English is the medium of instruction. However, many students at these colleges have problems comprehending L2 reading materials and thus struggle academically because English is the medium of instruction. To some extent, methods of teaching L2 reading contribute to students' reading failure (Arua et al., 2005). It is said that how we teach is as important as what we teach (Cambourne, 2004). Thus, how L2 reading is taught is important for improving students' understanding of texts. This study focused on teaching reading as a process which involves an application of reading strategies in order to facilitate text comprehension.

The majority of primary school teachers in Botswana 'uses local languages in the classroom, have low English competence and are currently not able to teach English well' (Arua et al.,

2005). Thus, pupils carry their language problems to secondary school where teachers, in an attempt to address these language problems, resort to using local languages. Apart from that, a typical English reading lesson in many Botswana schools goes through pre-, during and post-reading procedures in which students are given a passage to read. Students may read it silently, take turns to read it aloud or the teacher reads it to them after which they do various kinds of comprehension-testing exercises that implicitly require a limited number of reading strategies (e.g. skimming and scanning) which are not explicitly taught. This approach to teaching reading actually tests rather than teaches comprehension (traditional method). The rationale that originally prompted this study was the assumption that one of the possible ways of addressing this problem is to assist trainee teachers to become effective language learners by training them in the use of reading strategies, which is one of the language learning approaches that enhance communicative competence and one of the ways to improve the level of literacy. Previous research has suggested that if lecturers assist in these ways, students will learn better and invariably improve on their L2 proficiency and perform better in other subjects (Arua et al., 2005). Indeed, the results of the current study provide empirical support for this position.

### **Background to Reading Strategy Instruction**

The concept of *strategies* in reading instruction was used as early as 1946 in Robinson's book titled *Effective Study* (1946 in Frank, Grossi & Stanfield, 2006) which described the *SQ3R* (Survey, Question, Read, Recite, and Review) method of study from which many strategies evolved such as the use of background knowledge and identifying main ideas (Frank et al. 2006). In the late 1960s and early 1970s, various types of 'directed reading thinking lessons were presented along with structured overviews, note taking systems and study guides' (Frank et al., 2006). Herber (1970) published *Teaching Reading in Content Areas* which contained many of the original forms of learning strategies currently used in many schools in the United States of America and some other parts of the world. The period of the 1970s witnessed the work of cognitive psychologists exploring the effects of prior knowledge on comprehension.

One of the earliest researchers in strategy use was Rubin (1975). Her interest was to distinguish successful from unsuccessful language learners by categorising their use of 'modifiable L2 variables', with the intention of using the information to assist less skilled language learners to improve language learning (Rubin, 1975). One of the modifiable L2 variables was language learning strategy use. Reading strategy instruction (RSI) is based on the work of Rubin (1975). The aim of RSI is to improve students' comprehension through explicit instruction in specific cognitive and metacognitive strategies (Williams, 2002). This is the premise for this study. By the 1980s, research showed that 'students who took an active strategic role in their learning performed more successfully' (Frank et al., 2006). In the 1990s and early 2000s, more teachers started applying strategies such as *questioning the text, prediction and SQ3R* (Frank et al., 2006).

There are many approaches used in reading comprehension instruction such as students achieving independent learning (SAIL) which teaches reading processes as strategies through direct explanation, and direct explanation (DE) which develops teachers' 'ability to explain the reasoning and mental process involved in successful reading comprehension' (Williams, 2002). The transactional strategy instruction approach combines direct explanation with the

ability of teachers to facilitate discussion, while collaborative strategic reading combines reading comprehension strategy instruction and cooperative learning (Klingner & Vaughn, 1999). Recently, the content approach focuses on keeping students' attention directed toward the content of what they are reading and working through the text to build a representation of the ideas through discussion (McKeown, Beck & Blake, 2009). The strategies approach focuses on the explicit teaching of reading strategies (e.g. summarising, self-questioning and inferencing) and using them in comprehending the text (Williams, 2002).

The SAIL approach has been found to be one of the major factors that accounts for students' success in reading comprehension (Beers, 2003; Pearson & Duke, 2002). In SAIL, emphasis is on the interpretation of texts rather than coming up with 'right answers' (Beers, 2003; Pearson & Duke, 2002). Once the text is understood well, it is expected that the reader will be able to select the appropriate answers after intervention. The SAIL approach focuses on the application of strategies and gives several opportunities to practise so that students become independent in strategy use. Students are taught to attend to their own reading processes, the context in which they are reading and the text.

Many studies have used the strategies approach to reading instruction and reported improvement on students' reading comprehension (e.g. Johnston & Afflerbach, 1985; Brown et al., 1983; Paris et al., 1991; Hansen, 1981; Yanez, 1987; O'Malley & Chamot, 1990; Pressley & Block, 2002; Celce-Murcia, 1991; Collins, 1991; Trabasso & Bouchard, 2002; McNamara, 2004; McNamara, 2007). I have observed that challenges in reading and comprehension are some of the factors contributing to students' failure to improve on their L2 proficiency level and their performance in other subjects. Based on the evidence that explicit strategy instruction is effective in improving reading comprehension, the SAIL approach to reading instruction was adopted in this study to examine the effect of strategy instruction on students' L2 reading comprehension.

## **METHODOLOGY**

### **Research question**

This paper examines the effect of a 6-week strategy instruction programme on L2 students' reading comprehension. The study used a pre-posttest quasi-experimental design with a control and intervention group. The paper addresses two research questions.

- Did L2 students' reading comprehension improve significantly during the 6-week period?
- Was there a significant difference in L2 reading comprehension between the intervention and the control group after the intervention?

In addition, I reflect on the participants' response and identify lessons learned from the implementation of the intervention programme.

## Research design

The quantitative approach was used in this study. The crux of quantitative research is the investigation of relationships between variables. In other words, quantitative researchers seek to discover how and why diverse variables are associated with each other, and also to gain an understanding of phenomena (Punch, 2003). This approach assisted in determining the association between strategy training and L2 students' comprehension. I wanted to investigate the effectiveness of an explicit strategy instruction programme and this lends itself to a quasi-experimental design using pretests and posttests. In essence, the quantitative approach was deemed suitable for the purpose of this study.

## Participants

Two classes of second-year students enrolled for the Diploma Certificate in Primary Education at a Botswana College of Education which participated in this study. The participants were Setswana speakers using and learning English as a second language and as the language of learning and teaching (LoLT). The two classes (a control and an intervention class) specialised in English and Setswana. There were 32 students consisting of 31 females and 1 male in each class. The average age of the participants was 29 years. The youngest was 23 and the oldest 35. Out of the 32 students only 28 female students completed both the pre and posttests. It is necessary to note that the ratio of male and female in this study is typical of classes of teacher trainees specialising in languages in Botswana Colleges of Education.

## The instruments

A comprehension test was used to collect data on students' reading comprehension. An expository reading passage of 1000 words was selected from a prescribed college textbook. The assistance of an expert in the field was sought in adapting the selected passage to suit the purpose of this study. The passage contained 9 paragraphs, with each paragraph consisting of approximately 100 words. It was assumed that the participants would be able to read and answer questions on this 1000-word passage fairly comfortably within 30 minutes because as mature students they are expected to read about 200 - 250 words per minute (McNair, 2009). The text passage conforms to the level of the students' required reading. The passage is titled *African Tradition*, a topic selected for its relevance to the participants. The comprehension test was a criterion-referenced test meant to compare the students' performance before and after the strategy intervention with the intention to observe the effectiveness of the strategy instruction. There were 23 questions in the comprehension test. The questions in the comprehension test consisted of a combination of multiple choice, fill-in and open-ended questions. The 23 questions covered all the strategies under study: identifying main ideas, inferencing, rereading, self-questioning, drawing conclusions, summarizing and use of background knowledge (see Appendix A).

## Procedure

Using a quasi-experimental pre-posttest design, an explicit reading strategy instruction (RSI) programme was implemented over a six-week period in a Botswana College of Education. Two intact cohorts of second-year teacher trainees were randomly assigned to a control or intervention group. I was interested in conducting a study that focuses on relationships between variables (viz. reading strategy instruction and students' comprehension

performance) in the existing classes without interrupting the class routine. For this research context, the appropriate research design was thus a quasi-experimental design which accommodates studies conducted in natural settings. The comprehension test was administered to both the control and intervention groups. Prior to the administration of the instrument, the two groups of students were briefed on what the study was about, they were given assurances about confidentiality and anonymity and their participation was voluntary. Thereafter, they were given instructions as to what to do with the instrument. When the pretest was done, the intervention group received RSI for a period of six weeks. The control group students attended class according to their normal schedule. The posttest was administered to both groups at the end – after the intervention programme. The training was not given to the control group because the aim was to see whether strategy instruction would have an effect on the intervention of students' reading performance. However, the control group was scheduled to receive similar training in future to ensure that the control group students do not miss out on the strategy training. Although it would have been preferable to carry out the intervention programme for longer than six weeks, the college calendar did not allow it. For example, one major college activity that takes students from class and college for several weeks is practical teaching. It may not be possible to have a 12-week uninterrupted intervention programme in a Botswana College of Education because of the academic programme structure.

### **Design of the reading strategy programme**

Classes were conducted twice a week over a period of six weeks and each class session was 80 minutes long. Explicit instruction was given to the intervention group using students achieving independent learning (SAIL). SAIL stresses the use of strategies as a means to an end, i.e. to achieve comprehension and effective interpretation of texts. Students are taught to attend to their own *reading processes*, the *context* in which they are reading and the *text*. In the SAIL method, the teacher uses explicit instruction, modelling and discussion to teach comprehension strategies (Pearson & Duke, 2002). The SAIL approach focuses on the application of strategies and gives several opportunities to practise so that students become independent in the strategy use. For example, the passages students read to practise how to draw conclusions include some questions which required students to express their own opinions or ideas based on the information in the text (see Appendix B). The texts used in the intervention included fiction and nonfiction excerpts taken from prescribed textbooks, newspapers and magazines. Seven strategies were taught in the following order: use of background knowledge, self-questioning, drawing inferences, drawing conclusions, determining the main ideas and summarising. The rereading strategy was integrated into all the other strategies. The above seven strategies have been found to be used by proficient readers (Harvey and Goudvis, 2000).

The strategies were taught in that order because it was felt that the first and easiest thing for students to do is to become aware of their connection to the text. As they read they may come across a part of the text that may generate question(s), so self-questioning was taught next. Thereafter, inferencing was taught because it occurs at the meeting point of questioning, connecting and the text. Drawing conclusions was taught after inferencing. Although students may draw conclusions as they read, conclusions often occur after reading a text. Identifying main ideas was taught before summarising because the former provides the

foundation for the latter. Summarising was the last to be taught because it requires the use of all the other strategies to produce a meaningful summary.

The teaching of the strategies followed the four steps suggested for comprehension instruction according to the SAIL approach.

- Firstly, each strategy was taught by introducing the passage to be read, explaining the strategy to be learnt, when it would be used in the passage and what students needed to pay attention to in order to use the strategy effectively.
- Secondly, how to think when using the strategy was modelled.
- Thirdly, students were involved in a general class discussion on the passage and the strategy, students practised in groups of four, and the necessary guidance was given as the researcher moved between groups.
- Lastly, students took turns to lead a group discussion on sections of the text as they practised and modelled the target strategy. The four steps were implemented in a single lesson.

### **Data analysis**

Descriptive and inferential statistics were used to analyse the data collected. Before applying descriptive statistics to the data, comprehension passage questions were grouped into seven clusters: inference, background knowledge, self-questioning, identifying main ideas, rereading, drawing conclusions and summarising. The reason for this approach was that it was better to group items which address the same issue into a cluster and then get a total score across an item cluster to strengthen the reliability of the scores (Gay & Airaisans 2003).

The two sets of scores (pretest and posttest scores) of students in the intervention group were compared using a paired samples t-test to see whether the performance of the group improved significantly after the treatment. The same was done with the pretest and posttest scores of students in the control group to see whether there was a difference in each subject's performance. Thereafter, an independent sample t-test was used to analyse the pretest and post-test data from the comprehension scores to determine whether there was a significant difference between the intervention and control groups' mean scores. The probability level selected for this study is  $p = .05$  (that is a 95% level of confidence). The purpose of using the t-test is to know whether two means are significantly different at a chosen probability level (Gay & Airaisans, 2003). In addition, Cohen's  $d$  was used to test for effect size, i.e. to determine to what extent the intervention programme did affect the students' reading comprehension.

## **RESULTS**

Table 1 shows the pretests' and the posttests' descriptive statistics. Both the intervention and control groups' mean scores in reading comprehension test were generally low at pre-test time, with means of 46.2% and 45.1% respectively. To establish whether or not the two groups were indeed similar in comprehension level at pre-test time, Levene's test of homogeneity (Gastwirth et al., 2009) was applied to the pre-test comprehension mean scores. The two groups showed similarity in performance in the reading comprehension test.

Levene's  $F = .001$  ( $df = 54$ ),  $p = .976$ , indicates that there was equality of variance between the two groups at pre-test time.

**Table 1: Control and intervention pretest and posttest mean scores in comprehension**

Strategy	Control Group		Intervention Group	
	Pretest mean	Posttest mean	Pretest mean	Posttest mean
Identifying main ideas * 5	1.6 (1.06)	2.5 (1.17)	2.07 (0.97)	4.03 (0.79)
Inferencing 4	3.6 (0.48)	2.7 (0.85)	3.03 (0.63)	3.5 (0.74)
Background knowledge 8	6.4 (0.87)	6.0 (1.15)	5.5 (1.40)	7.1 (0.89)
Drawing Conclusions 4	0.8 (0.99)	1.7 (1.42)	1.2 (1.09)	3.4 (0.79)
Self-questioning 7	2.2 (0.87)	2.2 (1.16)	2.3 (1.09)	3.9 (1.34)
Summarising 5	0.3 (0.48)	0.4 (0.49)	0.7 (0.51)	1.3 (0.90)
<b>Overall mean</b>	15.2 (2.93)	16.7 (3.58)	14.8 (2.80)	23.3 (2.29)
<b>Overall score (33)</b>				
<b>Overall mean (%)</b>	46.2%	50.8%	45.1%	70.7%
<b>Percentiles</b>				
<b>25<sup>th</sup></b>	42.4	45.4	37.1	66.6
<b>50<sup>th</sup></b>	45.4	50.0	45.4	69.6
<b>75<sup>th</sup></b>	50.7	56.8	51.5	75.0

\*Possible total raw score is given for each strategy

The first research question was: *Did L2 students' reading comprehension improve significantly during the 6-week period?* On the surface it appears that both groups improved after the intervention according to posttest results displayed in Table 1. However, the intervention group seemed to have improved on all the strategies while the control group gained improvement in three strategies. A paired samples t-test for the control group was  $t = -1.746$  ( $df = 27$ ),  $p = 0.09$ , indicating that there was no significant difference in comprehension in their performance between the two testing periods. However, for the intervention group  $t = -16.177$  ( $df = 27$ ),  $p = 0.000$ , indicating a highly significant difference between the group's pretest and posttest scores.

In response to the first research question regarding whether L2 students' reading comprehension improved significantly between the two testing periods, the answer is that only the L2 intervention group's reading comprehension improved significantly.

With respect to the second research question (*Was there a significant difference in L2 reading comprehension between the intervention and the control group after the intervention?*), an independent samples t-test result was:  $t = 8.170$  ( $df = 54$ ),  $p = 0.000$ . The results indicate a highly significant difference between the control and intervention groups' performance in reading comprehension after the intervention, with the intervention group outperforming the control group.

To test for size effect, Cohen's  $d$ , was applied to the data using the pooled standard deviation. The result was 2.19, indicating a very strong effect. The pretest and posttest scores of the students at the different percentile levels also bear testimony to the impact the RSI had on the intervention group of students.

In order to look more closely at variation within each group, the students' responses were analysed in terms of percentiles as shown in Table 1. Within the control group, there was some improvement across all three percentile levels, with the weaker students (25<sup>th</sup> percentile) showing the least improvement. However, within the intervention group there was quite remarkable improvement across all three percentile levels with the weakest student making the most gains (37-66%). It is also important to note that at pretest time, the strongest students in the group (at the 75<sup>th</sup> level) showed mediocre performance, at 51.5%, yet at posttest time their performance started approaching what in Botswana would be considered good performance (at 75%). Results of this nature serve as a poignant reminder of how much potential can be released through an intervention programme.

## DISCUSSION

The intervention group's performance improved after the intervention. The results reveal that the intervention group showed a consistent improvement in all the reading strategies assessed in this study and their comprehension performance improved significantly. The improvement made by the intervention group suggests that if students are taught how to be independent users of reading strategies they could overcome reading failure, obtain information independently and achieve better performance in content areas. It also indicates that valuable opportunity for enhancing learners' reading skills is being missed. When students miss such opportunity many of them may never be able to perform at the level of their potential if they do not get help.

The finding that the intervention cohort improved lends support to Yang's (2006) findings, which suggest that L2 readers can apply reading strategies to solve reading failures that are due to insufficient language knowledge in comprehending a text. Based on his findings he promoted the teaching of reading strategies in schools. In effect, teaching reading strategies to students enhances understanding. The Cohen's  $d$  analysis yielded a large effect size. This corroborates the significant differences that emerged between the two cohorts in their posttest comprehension results according to the t-test.

## CONCLUSIONS AND RECOMMENDATIONS

The results of this study indicate that strategy training has an effect on L2 students' reading comprehension. The difference in the results of the control and intervention groups'

participants whose comprehension levels were homogeneous before the intervention can only be attributed to the intervention programme. This indicates that reading comprehension can be taught and explicit strategy instruction is one of the effective ways of teaching comprehension.

Since reading in a foreign or second language is both a language and a reading problem (Hudson, 2007; Koda, 2007), students can be assisted to form good reading habits by explicitly teaching them reading strategies that will help learners improve their comprehension abilities. Students need to associate reading not with effort or failure but with success. It is important to note that students do not naturally acquire the target strategies through implicit learning. That is, students learn reading strategies and how to use or apply them in reading through explicit instruction. Teachers need to make the comprehension process more visible. In effect, teaching comprehension is all about making the comprehension process more visible and strategy instruction facilitates this.

ESL teachers in primary and secondary schools as well as colleges need to integrate explicit strategy training into the regular reading instruction procedures (Chamot, 2005; O'Malley & Chamot, 1990; Zhang, 2008). For instance, teachers can embrace a teaching method that involves a comprehension task and strategy application and assessment, with emphasis on strategy assessment. This pedagogy might help in increasing students' strategy use and ultimately facilitate their competence in using strategies in various situations and may increase their self-confidence, motivation and self-efficacy.

The choice of strategies depends on the type of text being read. The two basic types of texts are expository and narrative. The main purpose of expository texts is to communicate, describe, or explain non-fictional information. Many ESL students find expository texts more challenging than narrative texts 'because they have specific text structures (e.g. sequence, compare and contrast, cause and effect, problem and solution, description, enumeration, categorisation, etc.) and contain technical vocabulary, and require readers to have background knowledge' (Reutzel & Cooter, 2007).

Because of the nature of expository texts, they require critical reading and thinking strategies (Dickson et al., 1998). Thus, strategies such as vocabulary strategies, activating background knowledge, inferencing, rereading, self-questioning, monitoring comprehension, identification of main ideas, drawing conclusions and summarising are likely to aid the understanding of such texts (Harvey and Goudvis, 2000). Students are typically never taught how to read texts in school and so they struggle when they attempt to read to learn. Strategy instruction could even begin as early as second grade by reading stories to children and familiarising them with elements of story grammar, and exposing them to expository texts. I believe that it is better to catch them young because they are enthusiastic about learning at that age. It will benefit them if they get the right instruction right from the foundation phase of primary school and on as strategic reading takes time to develop and become a habit of mind.

Many studies have shown that reading strategy intervention is effective in helping students improve their reading proficiency (Yanez, 1987; Celce-Murcia, 1991; Collins, 1991; Trabasso and Bouchard, 2002; McNamara, 2004; McNamara, 2007). However, RSI currently provides little insight about what precisely in the instruction is responsible for the difference.

Looking back, I believe that the two factors which made a significant difference are the *explicit instructional method* used in this study, modelling in particular, and a *supportive learning environment*. As a result of the explicit modelling during the intervention, the students could see what good reading involves – something that they never had an opportunity to either observe or practise in their primary and secondary school days. The art of connecting text to previous experience, self-questioning about the text, using context and other available cues to guess the meaning of words instead of always consulting a dictionary, the need to reread some parts of the text to access meaning, the importance of monitoring comprehension while reading, pausing and backtracking when meaning goes awry in order to fix it are all strategies that seemed to provide an example of what good reading involves to the students, and helped raise their metacognitive awareness. Metacognitive knowledge is central to comprehension because when readers have a firm grip on their thinking as they read it helps them to realise and know when comprehension breaks down and what to do to enhance their understanding of the text.

It is suggested that teachers consider teaching strategy instruction to their students. However, for teachers to teach strategy instruction, they need to learn it themselves so as to interact with students at the appropriate time and place while reading a text with them (Zhang & Wu, 2009). Teachers cannot transfer to students the knowledge they themselves do not have. They need to be taught the comprehension process by experts before they can teach their students. Once teachers are familiar with the rationale and procedures of an explicit RSI programme, they can implement such interventions for their students.

It is suggested that curriculum planners in Botswana, and other African countries where strategy intervention has not been incorporated into teaching, should seriously consider doing so. Effective reading is a necessity, not an option, especially for a country like Botswana, or any other nation, that aspires to become an educated and informed nation and does not want to lag behind in the global information age. Effective reading can be taught and explicit strategy instruction is one of the ways to help students achieve reading proficiency.

### **Limitations of the study**

The following are a few limitations of the study.

The length of the intervention was short. An intervention programme of this nature ideally requires a longer duration than 6 weeks for instruction and also more time for consolidation. A longer period (e.g. 12 weeks) of intervention or an intervention programme integrated throughout the year may show a more lasting improvement on students' academic performance. It takes time teaching students what strategies are, and how and when to use them to be proficient readers.

Delayed posttests were not conducted in this study. Delayed posttests to evaluate a lasting effect of the intervention on students' comprehension competency are required for a study of this nature. Thus, a longer period of time will give room for an in-depth examination of this research topic and will also provide opportunities for students to practice integrating these skills into every reading session.

## Direction for future Research

Research on reading comprehension is scarce in Botswana. At the time of this study, no record of previous studies in Botswana on how to improve reading comprehension, specifically RSI, could be found. It is clear that more research is needed on how to assist students to gain reading proficiency. To this end, the following are suggestions for further studies:

- Investigating the long-term effects of reading strategy intervention on both L1 and L2 reading comprehension. A careful examination of the transfer effects of strategy intervention from L1 to L2 and vice versa is needed. In essence, it is important to investigate whether students are able to transfer strategies learned to access the meaning of texts from one language to another.
- Investigating the effect of RSI on general academic performance and achievement in all content subjects. Are students able to apply their knowledge of reading strategies to comprehending subject matter in social studies, history, biology, and other content subjects? We need to have a deeper understanding of the transfer effects of reading strategy knowledge to content subjects.
- Examining the effect of reading strategy instruction on different types of texts. Further investigation is needed for different types of strategies needed for different kinds of genres. Does one teach main idea identification for narrative texts? A story schema strategy would seem to be more appropriate for narratives. Strategies that relate to character portrayal and stylistic effects are also important in narratives but not in exposition.

## REFERENCES

- ARUA, AE & M LEDERER. 2003. What are students in Botswana's high schools reading? In AE Arua, J Umolu, T Oyetunde & CE Onukaogu (Eds), *Reading for all in Africa: building communities where literacy thrives*. Newark: International Reading Association. 26-29.
- ARUA, AE, R MOANAKWENA, P ROGERS, S TIERNEY, & B LENTERS. 2005. *Improving the quality of literacy learning in the context areas: Situational analysis of secondary level education in Botswana*. France: International Reading Association.
- BEERS, K. 2003. *When kids can't read what teachers can do*. Portsmouth: Heinemann.
- BROWN, AL, JD DAY & R JONES. 1983. The development of plans for summarizing text. *Child Development*, 54: 968-979.
- CAMBOURNE, B. 2004. Holistic, integrated approaches to reading and languages arts instruction: The constructivist framework of instructional theory. In AE Farstrup & SJ Samuels (Eds), *What research has to say about reading instruction*. USA: International Reading Association. 24-28.
- CELCE-MURCIA, M. 1991. *Teaching English as a second or foreign language*. Boston: Newbury House.

- CHAMOT, AU. 2005. Language learning strategy instruction: Current issues and research. *Annual Review of Applied Linguistics*, 25: 647-678.
- COLLINS, C. 1991. Reading instruction that increases abilities. *Journal of Reading*, 34: 510-516.
- DICKSON, SV, VL COLLINS, DC SIMMONS & EJ KAMEENUI 1998. Metacognitive strategies: Instructional and curricular basics and implications. In DC Simmons & EJ Kameenui (Eds), *What reading research tells us about children with diverse learning needs*. New Jersey: Erlbaum. 361-380.
- ENGLISH, S. 2011. *Strategy intervention and reading proficiency in the modern tertiary EFL classroom*. Available: <http://www.nyu.edu/classes/keefe/waoe/englishs.htm>.
- FRANK, CB, GROSSI, JM & DJ STANFIELD. 2006. *Application of reading strategies within the classroom*. Boston: Pearson.
- GASTWIRTH, J.L, RJ GEL & W MIAO. 2009. The Impact of Levene's Test of Equality of Variances on Statistical Theory and Practice. *Statistical Science*, 24(3):343-360.
- GAY, IR & P AIRASIAN. 2003. *Educational research: Competencies for analysis and application*. 7<sup>th</sup> ed. New Jersey: Merrill Prentice-Hall.
- HANSEN, J. 1981. The effects of inference training and practice on young children's reading comprehension. *Reading Research Quarterly*, 16:391-417.
- HARVEY, S. & A GOUDVIS. 2000. *Strategies that work: Teaching comprehension to enhance understanding*. Ontario: Stenhouse Publishers.
- HERBER, HL. 1970. *Teaching Reading in Content Areas*. Englewood Cliffs, N.J: Prentice-Hall
- HESLIN, PA & UC KELHE. 2006. Self-efficacy. In SG Rogelberg (Ed), *Encyclopedia of industrial/organizational psychology*. Edited by SG Rogelberg. Thousand Oaks: Sage. 705-708.
- HORNING, AS. 2007. *Reading across the curriculum as the key to student success*. Available: <http://wac.colostate.edu/atd/articles/horning2007.cfm>.
- HUDSON, T. 2007. *Teaching second language reading*. Oxford: Oxford University Press.
- IRVIN, JL, DR BUEHL & BJ RADCLIFFE. 2007. *Strategies to enhance literacy and learning in middle school content area classroom*. (3<sup>rd</sup> ed). Boston: Pearson.
- JOHNSTON, P. & P AFFLERBACH. 1985. The process of constructing main ideas from text. *Cognition Instruction*, 2: 207-232.
- KLINGNER, JK & S VAUGHN. 1999. Promoting reading comprehension, content learning and English acquisition through collaborative strategic reading. *The Reading Teacher*, 55(7):738-747.
- KODA, K. 2007. Reading and language learning: cross-linguistic constraints on second language reading development. *Language Learning*, 57(1):1-44.
- LEGWAILA, MI. 1994. *The Botswana Literacy Programme*. A Paper presented at the Initial Literacy Assistant's course. Kanye, Botswana August/September 1994.

- MCKEOWN, MG, IL BECK & RGK BLAKE. 2009. Rethinking reading comprehension instruction: A comparison of instruction for strategies and content approaches. *Reading Research Quarterly*, 44(3):218-253.
- MCNAIR, J. 2009. *What is the average reading speed and the best rate of reading?* Available: <http://ezinearticles.com>.
- MCNAMARA, DS. 2004. SERT: Self-explanation reading training. *Discourse Processes*, 38(1):1-30.
- MCNAMARA, DS. 2007. *Reading comprehension strategies: Theories, interventions and Technologies*. New Jersey: Erlbaum.
- MOLELO, C & AR COWIESON. 2003. Inculcating a culture of reading in young learners: A case study of Botswana junior secondary school. In DM MacLeod, B Hookey, B J Frier, & AR Cowieson (Eds), *Participation and entitlement in educational development: Accounts of practitioner research in Botswana*. Farnham, United Kingdom: Ashgate. 107-128.
- MOOKO, T. 2008. *The challenge of developing an inclusive broadcasting policy: The case of Botswana* (Draft Paper).
- NKOSANA, LBM. 2009. The linguistic situation in Botswana and the achievement of millennium development goals. *The African Symposium*, 9(2):7-19.
- NYATI-RAMAHOBO, L. 1997. *The national language: A resource or a problem?* Gaborone: Pula Press.
- OFEIMUM, O. 2010. Bringing back the book. *The Nation*, 29 December: 46.
- O'MALLEY, JM & AU CHAMOT. 1990. *Learning strategies in second language acquisition*. Cambridge: Cambridge University Press.
- PARIS, SG, BA WASIK & JC TURNER. 1991. The development of strategic reader, in *Handbook of reading research volume 2*. Edited by R Barr, ML Kamil, P Mosenthal & PD. Pearson. London: Longman. 609-640.
- PEARSON, PD & NK DUKE. 2002. Comprehension instruction in the primary grades. In C.C. Block & M. Pressley (Eds), *Comprehension instruction: Research-based practices*. New York: The Guilford Press. 274-258.
- PRESIDENTIAL TASK FORCE. 1997. *Vision 2016: Towards prosperity for all, long term vision for Botswana*. Gaborone: Government Printer.
- PRESSLEY, M & CC BLOCK. 2002. Summing up: What comprehension instruction could be, in *Comprehension instruction: Research-based best practices*. Edited by CC Block & M Pressley. New York: The Guilford Press. 383-392.
- PUNCH, KF. 2003. *Survey research: the basics*. London: Sage Publications Ltd.
- REUTZEL, DP & RD COOTER. 2007. *Strategies for reading assessment and instruction: Helping every child succeed*. (3<sup>rd</sup> ed). New Jersey: Prentice Hall.
- RUBIN, J. 1975. What the 'good language learner' can teach us. *TESOL Quarterly*, 9(1):41-51.

- TELLA, A & S AKANDE. 2007. Children reading habits and availability of books in Botswana primary schools: Implications for achieving quality education. *The Reading Matrix*, 7(2):117-142.
- TRABASSO, T & E BOUCHARD. 2002. Teaching readers how to comprehend text strategically, in *Comprehension instruction: Research-based best practice*. Edited by CC Block & M Pressley. New York: The Guilford Press. 176-200.
- WILLIAMS, J. P. 2002. Reading comprehension strategies and teacher education. In AF Farstrup & ST Samuels, *What research has to say about reading instruction*. (3<sup>rd</sup> ed). Newark: International Reading Association. 239-257.
- YANEZ, R. 1987. Teaching reading at the intermediate level. A *TESOL Professional Anthology*. 81-95.
- YANG Y. 2006. Reading strategies or comprehension monitoring strategies? *Reading Psychology*, 27:313-343.
- ZHANG, LJ. 2008. Constructivist pedagogy in strategic instruction: Exploring pathways to learner development in the English as a second language (ESL) classrooms. *Instructional Science: An International Journal or the Learning Sciences*, 36:89-116.
- ZHANG, LJ & A WU. 2009. Chinese senior high school EFL students' metacognitive awareness and reading strategy use. *Reading in a Foreign Language*, 21(1):37-59.

#### **BIOGRAPHICAL NOTE**

Christianah Oyetunji [B.Ed. (Lang. Arts); B.A., M.A. (Applied Linguistics); M.Ed., D.Ed. (Educ. Management)]. Christianah taught for many years at secondary and tertiary levels in different countries. She is currently a lecturer at Limkokwing University of Creative Technology, Gaborone, Botswana. Her hobbies include reading and fashion design.

E-mail address: [ctoyetunji@yahoo.co.uk](mailto:ctoyetunji@yahoo.co.uk)

## Appendix A: Comprehension test

Read the passage below and answer the questions that follow.

### The Value of Religion

1. African peoples are deeply religious. Religion has given African peoples a way of understanding the world in which they live. This is important, because that understanding of the world affects their experience of life. It supplies them with answers to the questions which arise for all human beings. To say this does not mean that they are the correct or the only answers. They are simply answers which people have found practicable and meaningful to themselves. People cannot live without asking questions about their existence and the existence of the world, and about their own experiences of being alive.
2. African peoples have found answers to these questions within their African Religion, even if some of the questions may not be satisfactorily answered. By giving people a way of interpreting the world, a way of understanding their own existence, African Religion has equipped them emotionally, intellectually and culturally to go through life and face its many experiences. If what gives them answers and solutions was suddenly abolished, people would feel lost in this vast universe. Religion acts as a light and guide people as they go through life and reflect upon it.
3. Today science has become the main source of our knowledge of the physical universe. But for all its great contribution to human knowledge and learning, science has its own limitations. There are questions which it cannot answer. For example, the question of whether or not God exists, the question of suffering and pain of the world, the problem of what happens after death and the destiny of the soul, the question of the purpose of human life, and so on. These questions are left to religion to answer, and sometimes philosophy helps in supplying answers. But most people in the world cannot understand philosophy or science, whereas almost everyone is able to follow or obtain something from religion. It is religion, therefore, which tries to solve these profound questions for everyone. Without it we certainly would be more ignorant than we are concerning these and many other problems.
4. Part of any religion system is its moral values which regulate and harmonize human life. It is religion which tells us what is right and what is wrong, what is good and what is evil, what is just and what is unjust, what is a virtue and what is a vice. We saw that African Religion has many moral values within the family and within the community. No society can exist without morals. Religion enriches people's morals, for the welfare of the individual and society at large. It is morals which build relationships between people and between them and the world around.
5. In many religions of the world, including African Religion, it is recognized that people have both physical and spiritual parts. It is only religion which nourishes the spiritual

part of people. That does not mean that religion ignores the physical side. In fact, true religion is concerned with both the physical and spiritual welfare of people. To feed the spiritual half of man, religion provides spiritual insights, prayers, rituals, ceremony, sacrifices and offerings, dedication, devotion, trust in God, and other religious exercises. African Religion has many rituals of every kind. These are the channels for the contact between people and the spiritual world, between people and God. Through them, people stretch out their spiritual parts towards the invisible world and the things of the spirit. This spiritual hunger for peace, joy, comfort, security, hope, love and so on, can only be satisfied by religion.

6. We have said that African Religion has provided throughout the centuries the answers to the problems which people faced. It has also inspired the great ideas of our peoples concerning, for example, the moral life (courage, love, endurance, helpfulness, sense of kinship, and so on), cultural achievements (music, art, carving, dance and architecture), social organizations (such as the family, marriage, kinship, clans and age sets), political systems (such as idea of divine rulers), and the building of the past civilizations of our peoples.
7. Some of these great ideas passed unrecorded, because many of our peoples did not use the art of writing; but the little information and evidence which remain show that religion inspired them to do great things, to build great cities, to accomplish great works of art, and so on. Some of the ideas have been handed down through various skills and traditions. Without religion our history would have been greatly impoverished. The same applies to the history of other countries, where other religions like Christianity, Islam, Hinduism, Shintoism, and so on, have influenced the thinking and living of people. Religion inspires people to produce the best, the greatest, and the noblest that is in them.
8. Religion helps people to communicate in two directions. First, there is social communication. People meet together for a common purpose, for example to pray together, to perform a ritual together, to sacrifice together, and so on. They also meet indirectly through having common myths, legends, values, traditions, morals and views of the world. Because of religion they are able to understand one another, to communicate ideas and feelings and act more or less as a social unit, even if there may be other differences. At least in theory, religion gathers people together both in action and in religious commitment. This can be thought of as the horizontal direction of religious communication.
9. Secondly, there is vertical communication between man and God, as well as between people and the spirit beings. African peoples are very aware of the invisible world, which is an essential dimension of their views of the universe. These two worlds are close to each other. Therefore African peoples feel that they have to communicate with that invisible world as well. It is religion which turns their life in that direction so that they can communicate with God, with the spirit and particularly with the living dead who form part of their family. They are also able to penetrate the forces and powers of nature, which often they imagine to be personal forces.

(Adapted from *Introduction to African Religion* Second Edition by John S. Mbiti 1991)

1. In each of the paragraphs below, underline the sentence (only one) that you think forms/carries the main idea of the paragraph.

African peoples are deeply religious. Religion has given African peoples a way of understanding the world in which they live. This is important, because that understanding of the world affects their experience of life. It supplies them with answers to the questions which arise for all human beings. To say this, does not mean that they are the correct or the only answers. They are simply answers which people have found practicable and meaningful to themselves. People cannot live without asking questions about their existence and the existence of the world, and about their own experiences of being alive.

African peoples have found answers to these questions within their African Religion, even if some of the questions may not be satisfactorily answered. By giving people a way of interpreting the world, a way of understanding their own existence, African Religion has equipped them emotionally, intellectually and culturally to go through life and face its many experiences. If what gives them answers and solutions was suddenly abolished, people would feel lost in this vast universe. Religion acts as a light and guides people as they go through life and reflect upon it.

2. Which of the following is a conclusion that could be made from paragraph 1 and 2?

- (a) Religion is the only answer to human questions
- (b) People are curious by nature
- (c) Religion is an essential part of life
- (d) Religion helps African people to better understand the world in which they live.

3. In paragraph 3 the writer states “science has become the main source of our knowledge of the physical universe.” Give one example that you can think of to illustrate what the writer means here.

---

---

---

4. Towards the end of paragraph 3 the writer refers to “*these profound questions*”. In this context what does *profound* mean?

---

---

---

5. Give an example of a profound question with regard to religion.

---

6. Of the following questions, which is the most relevant question that could be asked after reading paragraph 3?

- (a) Who was the founder of African religion?
- (b) What do spirits do to people?
- (c) How do African people welcome the birth of twins?
- (d) If God exists, what kind of being is God?

7. In paragraph 4 the writer uses the word *vice*. What does this mean?

---

---

8. Write down, in the space below, possible clues in the paragraph that suggest the meaning of *vice*.

---

---

9. Look again at paragraph 4 and then select the option below which best paraphrases / summarises this passage:

- (a) The effect of religion on moral values
- (b) Religion and society
- (c) Life after death
- (d) Morals, customs, laws and tradition

10. Of the following questions, which is the most irrelevant question that could be asked after reading paragraph 5?

- (a) How does the spiritual part of people function?
- (b) How come religion is the only thing that can satisfy people's spiritual hunger?
- (c) In what ways does religion nourish the physical part of people?
- (d) Why does African Religion have no scriptures or holy books like other religions?

11. If we were to insert the subheading *Religion inspired great idea* into the text, where would be the appropriate place to put it?

- (a) Between paragraphs 5 and 6
- (b) Between paragraphs 6 and 7
- (c) Between paragraphs 7 and 8
- (d) Between paragraphs 8 and 9

**In paragraph 6 the writer states that religion has inspired great ideas in people. In this regard, think of how this relates to people in your own community and then answer questions 12-14**

**12. Name a shrine in your community where rituals, sacrifices and other ceremonies are conducted.**

---

**13. Which of the following (a-d) is the place where the ancestors reside to control the activities of the villagers in Botswana?**

- (a) Tsodilo Hills
- (b) Kgale Hills
- (c) Moremi Hills
- (d) Lentswe Labaratani Hills

**14. Which of the following is given the authority to control the affairs of people in a village?**

- (a) the Chief
- (b) the King
- (c) the President
- (d) the Advisor

**15. In paragraph 7 the writer refers to four other main religions of the world. Write down any two countries in which the following religions are practiced:**

**Islam is practiced in \_\_\_\_\_**

**Hinduism is practiced in \_\_\_\_\_**

**16. What conclusion can be drawn about the fact that many people did not use the art of writing in paragraph 7?**

- (a) There were insufficient writing materials
- (b) People did not care about record keeping
- (c) Many people were not educated
- (d) It was easier to use other means of keeping record

**17. What conclusion can be drawn about people meeting together to pray, perform rituals, etc. in paragraph 8?**

- (a) Religion is a way of life
- (b) People carry out religious duties freely
- (c) Religion binds people together
- (d) African tradition is complicated

**18. Apart from Christmas Day and Good Friday, list two (2) public holidays in Botswana, which are for marking religious events.**

- (a) \_\_\_\_\_
- (b) \_\_\_\_\_

**19. Which of the options below (a-d) would be an appropriate heading for paragraph 8 and 9?**

- (a) The unifying force of religion
- (b) The role of communication in religion
- (c) Humankind and the spirit beings
- (d) Prayers, rituals and sacrifice

**20. Of the following questions, which is the most relevant question that could be asked after reading paragraph 9?**

- (a) What is the meaning of taboo?
- (b) Do African people really communicate with their dead family members?
- (c) What is the place of people in the universe?
- (d) Why have Indian religions failed to make converts among Africans?

**21. Write down two questions that came to your mind as you read the passage.**

- (a) \_\_\_\_\_
- (b) \_\_\_\_\_

**22. Which is the most logical conclusion that a reader could draw from this passage as a whole?**

- (a) Humankind is older than religion
- (b) Religion existed before humankind was created
- (c) Religion is as old as humankind
- (d) Humankind started practicing religion a century ago.

**23. Summarise the passage in not more than 50 words.**

---

---

---

---

---

## APPENDIX B

**Read the following passage and answer the questions**

### **Walukaga the blacksmith**

A long time ago there was a blacksmith called Walukaga. He was the most skillful blacksmith in the country. He could make all sorts of things – not merely tools and weapons for the ordinary people, but sometimes even wonderful figures of iron for the king.

One day a messenger came to summon Walukaga to the king's house, saying that the king had a special task for him. Walukaga hurried to the king who sat surrounded by his advisors.

“Walukaga,” said the king, “You are the most skillful of all blacksmiths. No one can make iron figures to equal the ones you have made. I have a task for you. No one but you can do it.”

Having said this, the king raised his hand. At this signal his attendants brought in a great quantity of iron ready for working. “Walukaga, I want you to heat and hammer this iron. I want you to make a man for me. I do not want a small statue. I want real man made of iron – a man who can walk and talk, who has blood in his veins, knowledge in his head, and feelings in his heart.”

Walukaga heard the words of the king in amazement and despair. It was an impossible task. But he took the iron home without protest. He knew the king's power was absolute. He knew that if he did not do so as the king commanded he and his family would die by drinking from the poison pot. From that moment he had no peace of mind. He racked his brains, but he could not think how to begin. He visited other blacksmiths and all of his friends, He implored them to help him and think of something. But not one of them could advise him what to do.

One day Walukaga was walking home through the bush when he met a friend who had gone mad, and was now living in the wild all alone. Walukaga had not heard that his friend had gone mad and they talked to each other quite normally. After a while the madman asked Walukaga what he was doing now. Sighing deeply, Walukaga told him about the king's impossible command. The madman burst into heavy laughter. “If the king asks you to do the impossible you must do no less.”

The madman soon explained what he meant. “Go back to the king. Tell him that if he really wishes you to make a wonderful iron man, then it is essential that you have special charcoal for your fire, and special water to cool the hot iron. Tell him to order all the people of the kingdom to shave their heads and burn their hair until they have made one thousand loads of charcoal. Then, tell the king that his subjects must weep until their tears fill one hundred waterpots.”

Delighted by the suggestions made by his mad friend, Walukaga hurried back to the king. The king agreed to Walukaga's request and sent messages to all parts of his kingdom commanding his people to shave their heads for charcoal and to shed their tears for water. All the king's subjects tried their best to obey him because they were afraid of the king's power. But, when all of them had done their utmost, and all their heads were clean-shaven there was

not even one load of charcoal. And, although all their eyes wer squeezed dry of tears, there were not even two pots of water to show for their grief. When the king heard this, he summoned Walukaga and said, “Blacksmith do not try any more to make this iron man for me. I am unable to give you the charcoal and water you asked for.” (Bevan and Grant 1984b)

1. Why did Walukaga feel ‘despair’ when he heard the king’s command?
2. Why did he have no peace of mind?
3. Why was Walukaga delighted by the madman’s suggestion?
4. What would you have done if you had been Walukaga’s position?
5. What do you think the people who had to shave off their hair, and weep, thought of Walukaga’s suggestion?
6. What. If anything, can we learn from this story?