Put reading first: Positive effects of direct instruction and scaffolding for ESL learners struggling with reading

ANNALENE VAN STADEN

University of the Free State

The inability of many English second-language (ESL) learners to read at desirable levels is universal, but reasons for this and solutions have not yet been addressed. Within the South African teaching context especially there is a paucity of evidence-based research findings available on the literacy challenges faced by ESL learners and the application of effective intervention strategies. This paper investigates whether the reading and reading-related skills of ESL learners in post-apartheid South Africa can improve significantly following evidence-based direct instruction and reading scaffolding techniques to enhance reading comprehension. The paper is based on an experimental/control study of 288 ESL learners from 24 primary schools in the Free State province. Learners received small-group instruction, which included evidence-based direct instruction reading that explicitly targeted skills such as phonological/phonemic awareness, sight words and word identification, reading fluency, vocabulary knowledge, syntactic awareness, and the application of reading comprehension skills. ESL learners in the control group followed the prescribed reading instruction programme in the specific school, which entailed ESL classroom intervention using balanced literacy instruction with a focus on word study, group and individual story reading, and writing activities, without explicit instruction or reading scaffolding. Results showed statistically significant differences, with medium effect sizes, favouring ESL learners in the experimental group, thus increasing confidence that direct instructional procedures in combination with reading scaffolding techniques can boost important literacy and functional academic skills of ESL learners. Results from this study have already made a significant contribution to the hitherto scarce empirically validated research into the literacy challenges facing ESL learners in South Africa, and so are intended to open up for debate a topic of critical importance to the country's education system.

Keywords: ESL learners, direct instruction, reading scaffolding techniques, sight words, reading fluency, vocabulary knowledge, syntactic awareness, reading comprehension.

Introduction

Against the backdrop of the South African Constitution and Bill of Rights that accentuate the notion of a rights culture and embrace the democratic values of liberty, equality and human rights, the country's education system must be inherently capable of meeting the diverse needs of every learner and preventing learner breakdown and exclusion. In reality, the South African education system is failing many second-language learners who are still experiencing "exclusion". As a result of current language policies, the majority of the country's learners face the challenge of mastering academic and literacy skills (for example, reading and spelling) in a language they have yet to fully acquire, placing them in a high-risk category of developing literacy problems (Nel, 2005). The present standard of reading in South Africa is cause for considerable concern (see Bloch, 2009; LeCordeur, 2010; De Witt, Lessing & Lenayi, 2008). Results from both national and international surveys conducted in the past decade paint a gloomy picture of the country's levels of literacy and reading proficiency among learners in the foundation, intermediate and senior phases of school (Le Cordeur, 2010; Kruizinga & Nathanson, 2010). For example, the Department of Education's Systemic Evaluation (DoE, 2007) revealed that the average achievement score for Grade 3 literacy development was only 36%, while in 2002 the score for Grade 3 learners' reading comprehension skills was 54%. The results of several surveys conducted among intermediate phase learners in South Africa are even more alarming. For instance, the Progress in International Reading Literacy Study (PIRLS, 2006) showed an average reading score of 302 points for Grades 4 and 5 learners, well below the international

mean of 500. The Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ II, 2000) found that the overall reading level of Grade 6 learners was at Level 3 (basic reading). Official results from the DoE in 2008 corroborated these findings, demonstrating a literacy average of 48%, with 39% for reading and writing with comprehension.

Reflecting on these disturbing statistics (Le Cordeur, 2010; Kruizinga & Nathanson, 2010; PERILS, 2006; SACMEQ II, 2000), it is imperative that the barriers to learning for ESL learners be addressed as early as possible. The social and psychological consequences of not providing effective support are severe (Lipka & Siegel, 2010) and include reading and related problems such as academic failure, grade retention, developing social problems, poor peer relations, and emotional problems. In the past decade ESL research has significantly increased internationally (McCardle, Scarborough & Catts, 2001; Lipka & Siegel, 2007). In South Africa, research on the accommodation and support of ESL learners is limited (Soares De Sousa, Greenop & Fry, 2009). Despite the fundamental relevance of this topic to the country's multilingual education demographic, only a limited number of South African empirical studies have examined the underlying extrinsic and intrinsic factors that contribute to ESL learners' literacy barriers and/or possible ways of addressing their reading- and literacy-related challenges through effective support and early intervention programmes (Soares De Soussa *et al*., 2009; Nel & Theron, 2008; Soares De Sousa & Broom, 2011).

Policies and strategies as well as research are urgently needed to improve the low reading levels of learners. The main purpose of this pilot research was thus to ascertain whether the reading and reading-related skills of intermediate phase ESL learners can be significantly improved by using effective reading scaffolding techniques and direct/explicit instruction in specific reading skills, while simultaneously empowering ESL educators in applying specific reading strategies and techniques to address reading challenges in their classrooms.

Rationale and motivation

Language has played a significant role in shaping the socio-political history of the country (Schlebusch & Thobedi, 2005). Prior to the 1994 elections, English and Afrikaans were the only two languages with an officially recognised nationwide status, despite the wide variety of other African languages that were (and are) learnt, spoken and used by the vast majority of South Africans (Manyike, 2007). Language soon became a very sensitive issue, "shaping up and maintaining a continuous struggle for and against inequality" (Schlebusch & Thobedi, 2005:307). The 1996 Constitution recognises eleven official languages in South Africa. Recent statistics released by the Department of Basic Education (2011) (from 1998-2010) revealed that currently the vast majority of learners still attend schools in which the language of teaching and learning (LOLT) differs from their native language. Although only one in ten South African children speaks English as his/her first language, the majority are taught and assessed in English (Fleisch, 2008). The 2011 statistics show that approximately 64% of learners are instructed through English, followed by Afrikaans (approximately 11%), Isizulu (approximately 8%), and IsiXhosa (approximately 6%). Research evidence (Fleisch, 2008) demonstrates the following benefits of home-language instruction, especially in the foundation years: improved academic performance, increased access to education, reduced repetition rates, and lower drop-out rates. From the low literacy and numeracy standards and Grade 12 pass rates (Nel, 2005) it is evident that the majority of learners currently at risk of developing literacy problems are ESL learners.

To better understand why ESL learners are more at risk of developing reading problems one has to reflect on the interrelatedness of both extrinsic and intrinsic factors that contribute to their literacy barriers. The researcher draws on two related theories, namely Bronfenbrenner's ecosystemic model (1979) and Cummins's (1991) linguistic interdependence hypothesis. Bronfenbrenner's systems theory helps in understanding the complex interaction between individual learners and their contexts (family, school, peer group, community), and his developmental model can be used to understand their change and growth over time (Donald, Lazarus & Lolwana, 2006). With regard to ESL learners' construction of knowledge, this means that any of these contexts may contribute to potential language and learning problems, and create

barriers to LOLT acquisition. These include poor socio-economic circumstances which influence prior knowledge and skills; impoverished language experiences both at home and at school; lack of resources such as libraries, reading material and newspapers; lack of essential support of parents/caregivers at home; parents' low English literacy levels, including limited opportunities to socialise and communicate through home language; insufficient exposure to an additional language; overcrowded classrooms; ESL teachers with limited English proficiency; ineffective training of ESL educators, and insufficient ESL support material or programmes (Nel, 2005; Nel & Theron, 2008).

Since Bronfenbrenner's (1979) model also highlights the child development aspects of ESL learners, I argue that their level of cognitive-linguistic functioning in their first and second languages also contributes to ESL proficiency. Similarly, Cummins argues that success, for example in L2 reading, depends on previous competence in L1 literacy skills (Sparks, Patton, Ganschow, Humbach & Javorsky, 2008), and in the course of learning one language a child acquires a set of skills and implicit metalinguistic knowledge that can be drawn upon when working in another. This common underlying proficiency (CUP) provides the basis for development of both the first (L1) and the second language (L2). Reflecting on the weak literacy skills of many ESL learners, the key problem is that many learners have not yet fully mastered CUP in their home language when they start formal schooling, resulting in language delays, weak emergent literacy skills, and lower levels of reading and spelling attainment in L1. As a result, poor L1 and literacy-related skills do not provide the basis for development of L2 or reading- and spelling-related skills. The majority of learners are expected to become proficient L2 readers, despite many not yet having become accomplished L1 readers by Grades 2 and 3, when the transition to English takes place. For example, the majority of learners in Grade 4 have barely mastered reading comprehension skills in L1, but are still expected to be proficient in L2 reading comprehension (Pretorius, 2002). Many ESL learners are also at risk of being misdiagnosed as "learners with learning impairments", because educators in ESL learning settings find it difficult to determine whether literacy problems stem from low linguistic proficiency or from general learning impairment, probably due to underlying cognitive factors such as word decoding or language-processing problems typical of a learning impairment (Durgunoglu, 2002; Limbos & Geva, 2001).

Reading and ESL learners

The specific reading skills learners need in order to become proficient include phonemic awareness; phonics; vocabulary; comprehension, and fluency (NRP 2000). Although much is known about the pre-reading skills necessary for early reading acquisition in English as a first language (EFL), the question remains as to whether the same patterns exist for children learning ESL. With the establishment of a robust relationship between phonological skills, rapid naming and reading in first language, researchers over the past decade started to examine whether similar predictors apply to L2 learners (LeSaux & Siegel, 2003; Limbos & Geva, 2001). If we are to reduce the number of under- and over-referrals of ESL learners for special education, and accurately identify those who require more intensive support, we must build upon the knowledge base of how English first-language learners (EFLs) develop and are assessed. We ought to combine this information with new methodologies to determine the best ways of distinguishing between learning problems due to learning impairments (LIs) and those due to language differences.

It is beyond the scope of this article to comprehensively discuss all basic reading-related skills, social-emotional factors (for example, readers' motivation) and/or effective methods and approaches to the teaching of reading. However, given its focus, the researcher is especially interested in discussing and reporting on research findings involving the relevant skills discussed below.

Pre-reading skills and reading proficiency

Recently, more empirically validated research findings investigating the role of emergent literacy in reading and spelling development have been published (Chiappe, Siegel & Wade-Woolley, 2002). These studies specifically focus on the involvement by emergent literacy development of both cognitive processes and psycho-linguistic activities that are highly influenced by the social and cultural contexts in which children are raised (De Witt *et al*., 2008). Examples are parent-child interactions and discussions during shared

storybook reading; literacy-enriched play settings, and phonological awareness games and activities. It is clear that quality of early language and literacy exposure is imperative for the development of emergent literacy skills of all learners (pre-reading skills). Researchers agree that phonological awareness is one of the emergent literacy skills most significant in learning to read and fluency of reading from early pre-school to university (Chiappe *et al*., 2002). Phonological awareness refers to the ability to understand the sound structure of a language and includes the ability to segment speech into phonemes and to detect and manipulate phonemes (Jongejan, Verhoeven & Siegel, 2007). Recent research focused on phonological processing in working memory and phonological access to lexical memory, and the way these skills relate to reading performance in L1 and L2 learners (Lafrance & Gottardo, 2005). Phonological awareness tests have been reported as good predictors of reading abilities in L1 (Lipka & Siegel, 2007), and are essential for adequate reading for ESL learners from different language backgrounds (see, study on Phunjabi and L1 learners, Chiappe & Siegel, 1999).

In addition to phonological processing, the following cognitive skills are important for reading and spelling acquisition: verbal working memory, syntactic awareness, and phonological recoding in lexical access (word retrieval) (Chiappe *et al*., 2002). Since reading requires the simultaneous processing, retention and retrieval of information, thus placing a considerable demand on working memory (Jongejan *et al*., 2007), problems with verbal short-term memory may result from difficulties in encoding adequate phonological representations. Research shows that both ESL learners and those with reading impairments experience countless problems with the completion of working memory tasks. A deficit in working memory is thus a generalised problem, regardless of language background (LeSaux & Siegel, 2003).

The ability efficiently to access lexical information is related to reading proficiency and reading comprehension (Jongejan et al., 2007). Lexical access is often measured in rapid naming tests, which involve the retrieval of phonological labels in response to visual stimuli (for example, in colours, pictures, letters or numbers). Furthermore, rapid naming has also been shown to be a predictor of concurrent reading and spelling ability (Verhoeven, 2000). As with phonological awareness, syntactic awareness is a skill related to beginning reading achievement. Syntactic awareness, or the level of sensitivity to the grammatical structure of a language, has also been found to be related to reading and spelling ability in L1 learners (Chiappe et al., 2002). Even though syntactic awareness is of more importance to reading comprehension and writing skills, evidence has been found of its significance during "isolated" word reading and spelling tasks (Chiappe et al., 2002). Furthermore, syntactic awareness is also essential for fluent and efficient reading of texts and requires prediction of the next sequence of words (Lipka & Siegel, 2007). Since syntactic awareness requires a certain degree of language proficiency, it is evident that L2 learners who experience ESL barriers, as well as L1 learners with reading impairments, will experience more challenges. Research studies have shown a deficit in syntactic awareness skills among ESL-speaking and disabled readers compared to their English EFL peers (LeSaux & Siegel, 2003).

Word identification (including sight word learning)

To achieve reading comprehension, Miller (2005) maintains that the novice reader first has to learn to recognise the "building blocks" of a sentence in order to be familiar with the words and their functions. Research highlights three underlying constituent processes in word identification across writing systems, with three lexical constituents being orthography (O), phonology (P) and semantics (S) (Wang & Geva, 2003). Many researchers agree that in reading for meaning, both the direct route from orthography to semantics (O→S) and the route from orthography to semantics via phonology (O→P→S) help to identify a word (Wang & Geva, 2003). Recent research summaries show that ESL learners develop word-reading skills like their EFL counterparts (Verhoeven, 2007). However, the process of acquiring a sight word vocabulary may be more challenging for the former since many are less familiar with the vocabulary, syntax, and phonology of English (Lipka & Siegel, 2007). If learners do not have a word in their oral vocabulary it takes away an anchor for their word-reading development, as they must learn the oral and written version of words in English at the same time. ESL learners may have less experience of print materials in English, thereby reducing exposure to specific words that could become part of a sight word

vocabulary. Instructional practices tailored to build on what students know and to support their oral and written language skills in English may be more effective than ignoring their background experiences (Helman & Burns, 2008). Some of the verbs that form the foundation of the lists (and of English texts) take on irregular forms, and because they do not follow standard rules of spelling (for instance, phonological regular words), the only way to learn conjugations is through frequent exposure to a variety of reading contexts and memorisation (automaticity). This can include using multiple instructional techniques, fluency exercises and fast recognition word games, possibly by following the direct route from orthography to semantics (O→S).

ESL readers and the development of reading comprehension skills

According to the National Reading Panel (NRP, 2000) good readers activate prior knowledge; constantly evaluate whether their reading goals are being met; frequently formulate predictions and make inferences, and read selectively. Though much is known with regard to emergent literacy skills and their development in second-language learners, less is known about the development of reading comprehension in ESL learners. Research confirms that phonological awareness predicts reading comprehension in both L1 and L2 beginning readers (Lafrance & Gottardo, 2005). Whether or not phonological awareness remains an important predictor of reading ability in older ESL learners, or whether other factors contribute more to the differences in L2 reading ability in this age group, is still unknown. Although researchers embracing the "Simple View of Reading" suggest that reading comprehension in younger children is more closely related to phonological processing/decoding than in older ESL learners, who are assumed to have mastered basic decoding skills, vocabulary knowledge seems to be a better predictor of reading comprehension skills in older ESL learners (Hoover & Gough, 1990). As this pilot study focuses on intermediate phase ESL learners, the interrelatedness of prior knowledge, vocabulary knowledge and reading comprehension, as well as specific reading comprehension strategies that might be useful for ESL learners will be discussed next.

Vocabulary knowledge

Learning vocabulary is an essential part of mastering any language, more so a second language (Sénéchal, Ouelette & Rodney, 2006). Research has found that language skills and vocabulary knowledge correlate strongly with reading ability in ESL learners (Grant, Gottardo & Geva, 2011), and that vocabulary as a measure of background knowledge can be considered another crucial component in reading, saturating the central processes of global interpretation, inference tracking and comprehension monitoring. Many studies have found that ESL learners develop their vocabulary more slowly than they develop their word reading skills, and that vocabulary knowledge remains lower than that of their EFL peers (Chiappe *et al*., 2002; Lipka & Siegel, 2007, 2010). The depth (richness of the presentation) and breadth (number of words known) influence L2 vocabulary acquisition (Nel & Theron, 2008; Verhoeven, 2000; Grant *et al*., 2011). The acquisition of vocabulary knowledge is important due to its relationship with other components of reading development (Sénéchal *et al*., 2006), while it mediates the performance on other linguistic skills, such as grammatical and morphonological knowledge, and insufficient vocabulary knowledge impedes growth in reading comprehension outcomes (Grant *et al*., 2011).

Reading comprehension levels are affected by the types of opportunities available for building an extensive lexicon which, in turn, depends on exposure to a language-rich environment. As such, learners with extensive vocabularies are likely to achieve reading success (Verhoeven, 2007). Many ESL learners from impoverished backgrounds are often not exposed to quality interactive language input/experiences at home, and thus do not acquire sound vocabulary knowledge in English.

It is important to incorporate both direct and indirect strategies for learning vocabulary, with exposure to the latter pertaining to learning words primarily through conversation, and being read to or reading on one's own. Context is thus key (Sénéchal *et al*., 2006). On the other hand, examples of direct vocabulary instruction include the pre-instruction of word meanings, keyword exercises, repeated multiple readings, interactive word-wall activities, computer-based exercises, teaching multiple meanings of words, synonyms and antonyms, as well as semantic mapping exercises (NRP, 2000). Overall, findings for

learners, irrespective of their language, show that explicit instruction approaches (including multimedia) improve vocabulary and reading comprehension (NRP, 2000).

Prior knowledge

Prior knowledge refers to the background knowledge readers bring to the text. Although the NRP report (2000) found insufficient empirically validated evidence that prior knowledge improves readers' comprehension, according to Oakhill & Cain (2007), while some readers are able to integrate information at a local level, many find it difficult to produce a coherent integrated model of the text as a whole. It has been suggested that the comprehension of a text, in particular the ability to make inferences, depends on the quality and application of prior knowledge. Discussions on reading comprehension and background knowledge form part of "schema theory" according to which one's background knowledge is packaged in abstract units known as schemata. Gunning (2003) points out that people bring their reasoning processes and background knowledge to their construction of meaning. The more they know about a topic, the deeper and more complete will be their comprehension.

This illustrates the importance of educators acquiring adequate passage- and topic-specific knowledge, and explicitly engaging ESL readers in elaborative, meaningful and creative discussions and discourses about reading topics before assigning reading tasks to them (Sénéchal et al., 2006). This implies creating practical in-class experiences (for example, introducing real-life objects and hands-on exploration), using a variety of visual aids, explicitly guiding them to make use of mental imagery, exposing them to conceptually related books (for example, different 'theme books'), and introducing opportunities for "free recalling", "webbing", dramatisation and anticipation, while simultaneously expanding their vocabulary knowledge.

Cognitive and metacognitive reading comprehension strategies

Skilled readers apply a number of comprehension strategies (Pressley, 2000). They make predictions, read selectively and associate ideas in the text with existing knowledge. By revising their prior knowledge in the process they work out the meanings of unfamiliar vocabulary based on contextual clues and adopt various methods such as underlining and notes as an *aide-memoire*. Interpretation, evaluation and review of important points conclude their reading and inspire thinking (Pressley, 2000). It is thus important to scaffold reading comprehension skills by means of techniques such as mental imagery, teacher-directed and reciprocal questioning. Research among cross-linguistic samples (for example, hearing-impaired learners) shows that such techniques enhance reading comprehension and stimulate thinking skills, including prediction, recollection, repetition, analysis, inference, integration and evaluation (Schirmer & McGough, 2005). Teacher-directed questioning activates prior or background knowledge which, in turn, enhances L2 readers' abilities to use the thinking skills, while metacognitive strategies, such as self-questioning, summarising and predicting, can be taught and applied independently to monitor and enhance reading comprehension (Schirmer & McGough, 2005).

Methodology

The pilot study followed a quasi-experimental *pre-test post-test design* that draws on data obtained from an intervention study among intermediate phase (Grades 4-6) ESLs in 24 randomly selected schools in the Free State Province. A total of 24 postgraduates (22 female and 2 male) in support teaching who had enrolled for a module in Reading Skills were recruited to participate in a community-based research project. Based on interviews with the support teacher and/or head of department, 12 ESL learners in the intermediate phase with typical below grade-level performance in reading were identified as the target population. The children were drawn from Grade 4 (n = 96), Grade 5 (n = 96) and Grade 6 (n = 96) classes, making a total of 288 ESLs (156 boys and 132 girls) aged between 10 years and one month and 13 years and eight months. Both the parents'/guardians' written consent and the Free State Department of Education's permission were sought before involving the ESL learners in this research. The Department,

principal, and teachers of the school, and all the participants' parents were advised of the study's purpose and when the intervention programme would be conducted. It was explained that privacy and anonymity would be strictly protected, and that non-participation would entail no disadvantage. Permission was obtained to implement the intervention programme for six months and to publish the findings in an academic journal.

Since the sample did not conform to normal distribution, a non-parametric test (the Mann-Whitney U-test) was used to demonstrate that the two groups were similar at the start of the intervention. The results revealed no significant differences between the groups before the experimental intervention: chronological age (U=10739.5*; p=0.59*), sight words (U=10538.0; *p= 0.80*), word identification (U=9769.5*; p=0.39*), syntactic awareness (U= 10270.5*; p=0.88)*, reading comprehension scores (U=10458.5*; p=0.89*) and spelling (U=9894.5*; p=0.50)*. The control group was formed in such a way that the dependent variables resembled as closely as possible those of the experimental group before the experimental investigation.

Measuring instruments

The following standardised and diagnostic tests were used as pre- and post-test measures to ESLs' reading over five months. *UCT* reading tests (standardised instrument to assess sight words, one-minute speed reading, word identification and spelling) as well as diagnostic tests evaluating children's level of syntactic awareness and reading comprehension were performed. The standardised measures have been standardised for the South African population, and administered by the different district support teams to be suitable for this investigation. The diagnostic tests for syntactic awareness and reading comprehension were based on the diagnostic reading passages from Manzo, Manzo and McKenna (1995), with an increase in the level of difficulty (separate diagnostic tests for each grade). The maximum possible marks for syntactic awareness and reading comprehension were 15. After administration, the tests were marked and the results verified by an independent marker.

Procedures

Prior to the intervention and instruction of the ESL learners, the 24 postgraduate students were thoroughly trained in two three-hour training workshops, supported by additional practical teaching workshops throughout the duration of the intervention. One Saturday each month students attended a four-hour session on the practical application of support teaching strategies and procedures. Support teaching honours students who were full-time educators were recruited, which simplified many practicalities in the research because educator participants could enrol ESL readers from their own schools. Further benefits were that a more diverse leaner population could be reached, since these students represented different geographical regions of the province and included both rural and urban schools. Each student identified and assessed twelve low-performing readers from her/his school. All the assessments and class workbooks of the learners were brought to the first workshop and the researcher assisted the students in randomly assigning the ESL learners to an experimental and control group. The postgraduate student-educators provided small-group instruction, with 2-6 learners in a group, for ESL learners in the experimental group twice a week for 45-minute sessions for six months, while the learners in the control group continued with the specific schools's reading curriculum. The learners in the experimental group received direct instruction based on mastering a sequence of essential reading skills, and using a variety of instructional materials and methods, while ESL learners in the control group continued with their school reading curriculum that followed a balanced literacy approach and consisted of several common features, including word study, group reading of stories, and writing activities, without explicit instruction.

Intervention strategies

The postgraduate students incorporated a variety of multi-sensory instructional strategies based on the following reading techniques/strategies, namely interactive word-wall exercises and the Fernald approach (VAKT approach). This also included the implementation of reciprocal questioning (for instance, ReQuest

reading method) and the Cloze procedure to enhance reading comprehension. These exercises alternated on a weekly basis as follows:

- First, students selected five to ten target/vocabulary words (on a weekly basis) from the class readers of the specific school. These words were introduced through interactive "word-wall" activities. After the children had pasted a word on the "word-wall", its meaning was reinforced by matching the printed form with an object or picture and it was used in sentences. Other reinforcement activities (alternated weekly) included word tracing; playing word games involving antonyms and synonyms, and sorting vocabulary cards of word meanings into different categories or themes.
- Second, sight words were introduced via flashcards following the guidelines of the "sight word association procedure" (SWAP) (Vaugh, Bos & Schumm, 2007). Words were reinforced by print/picture mapping exercises and by playing fast word-recognition games such as *Bingo* or *Snap*.
- Third, in the present study the Cloze procedure was used as an assessment tool to determine ESL learners' reading levels, while during the intervention it was used as a reading instruction technique for learners in the use of contextual clues, and as such to improve their syntactic awareness skills.
- Fourth, the reciprocal questioning reading procedure (for instance, ReQuest was introduced daily throughout the week. Through interactive discussions (for instance, sociolinguistic opportunities for reading development) learners were introduced to the title, pictures and "new" vocabulary words prior to reading. During these reciprocal reading experiences, the teacher actively involved the children by guiding them in the use of reading comprehension strategies such as predicting, questioning, making inferences, and summarising or retelling stories in English.

Results

A quasi-experimental design with matched samples was used in this study. The children in the treatment group were exposed to the reading intervention which concentrated on sight word recognition, vocabulary knowledge, word-decoding strategies, syntactic awareness and reading comprehension. Table 1 reflects the scores obtained for each group in the five dependent measures.

Table 1: Paired (two-sided) *t*-test comparisons between reading-related skills (scores) of the experimental and control groups (*N*=288)

Groups	Sight words		Word identification		Reading comprehension		Syntactic awareness		Spelling	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	M (*sd*)	*M* (*sd*)	*M* (*sd*)	*M* (*sd*)	*M* (*sd*)	*M* (*sd*)	*M* (*sd*)	*M* (*sd*)	*M* (*sd*)	*M* (*sd*)
Experimental (*n*=144)	20.4 (6.5)	39.8* (11.6)	13.2 (5.2)	29.2* (11.5)	4.3 (2.4)	9.2* (2.7)	3.6 (2.2)	8.0* (2.1)	9.7 (4.3)	21.1* (6.6)
Control (*n* = 144)	20.2 (7.5)	21.0 (7.8)	12.9 (5.1)	14.8 (7.9)	4.8 (3.1)	4.9 (3.7)	3.8 (2.8)	3.0 (2.0)	9.5 (4.8)	11.6 (5.4)

* $p<0.05$

The pre-test scores indicate that the children in both groups experienced great difficulty with sight words, word identification, syntactic awareness, reading comprehension and spelling. Reflecting on the post-test scores, the mean scores for the experimental group show a remarkable improvement. To determine whether these results were significant, *t*-tests were conducted to determine whether the improvement was significant. The results for sight word recognition (t = 16.28; df =286; p <.000; d = 0.69); word identification (t = 11.44; df =286; p <.000; d = 0.56); syntactic awareness (t = 16.36; df = 286; p <.000; d = 0.69); reading comprehension (t = 11.24; df =286; p <.000; d= 0.55) and spelling (t = 13.31; df =286;

p <.000; d = 0.61) all indicated that the children in the experimental group had improved significantly in these five dependent measures. Those in the control group improved marginally in these five dependent measures, most likely as a consequence of the reading curriculum followed at the sample schools and/or due to natural progression. The significant improvement of ESLs in the experimental group clearly demonstrates the benefits of receiving direct/explicit instruction in multi-sensory activities that address important aspects of reading, such as fluency, word decoding, syntactic awareness, activation of prior knowledge and expansion of vocabulary knowledge, together with reading scaffolding (guiding ESL readers) in the application of cognitive and meta-cognitive reading comprehension strategies.

The APA requires the calculation of effect sizes for all significant results to determine whether the results are of practical significance. According to Gay and Airasian (2003), practical significance refers to the educational value of the results obtained in a study, and an effect size is the measure of the practical significance. Cohen's d (Cohen, 1988) was calculated to determine the effect size for two independent samples. From the results above (Cohen's d) it is evident that the effect sizes for the different reading skills ranged from 0.55 to 0.69. This indicates moderate practical significance for this study.

Discussion

The present study set out to investigate whether ESL learners' reading and reading-related skills can be improved significantly following intervention strategies that are evidenced-based, explicitly taught and involve both lower and higher order reading skills to improve sight word automaticity, vocabulary knowledge, syntactic awareness, as well as guiding ESL readers' through various scaffolding techniques to apply reading comprehension strategies. The application of these techniques has proven to be beneficial in creating sociolinguistic opportunities for reading development, such as introducing and discussing "new" vocabulary words (prior to reading) and reinforcing "new" vocabulary words (after reading). This was done through interactive "word-wall" activities and specific strategies to develop reading skills, such as explicit training in sounds, phonological awareness, word identification and the development of syntactic awareness through Cloze-procedure exercises. To further promote the storage of English words in ESL learners' mental lexicons, these techniques were complemented by exposing them to multiple visual, tactile and kinaesthetic activities, either concretely or semi-concretely. Secondly, the present study also attempted to increase ESLs' ability to recognise sight words automatically. Sight words included in the intervention programme comprised words from the adapted Dolch sight word list and the sight word lists of Vaugh *et al*. (2007). Between five and ten words were taught each week. When ten sight words had been mastered, their speedy recall was practised in order to improve the learners' sight word automaticity by using flashcards, sliding word cards and by playing fast word recognition games such as *Bingo* or *Snap*. Compared to the ESL readers in the control group (who did not show significant improvement in sight word vocabulary), ESL learners in the experimental group improved significantly. Limited, available findings suggest that many ESL readers struggle with reading comprehension as a consequence of weaker vocabulary knowledge and oral language proficiency (Verhoeven, 2007). Vocabulary predicts reading comprehension ability both concurrently and over time.

Conclusion

Results from the present study demonstrated that ESL learners, prior to the intervention, had significant delays in reading-related skills and in reading comprehension. Post-test results show that they benefited through explicit guidance and scaffolding to apply "higher order" comprehension strategies such as questioning, predicting, making inferences and summarising. In general (although not reported in this article), the educators' reflections on strategies such as the ReQuest method and the application of reading comprehension strategies were very positive and learners especially enjoyed the interactions during the interactive reading sessions. Post-test results revealed significant gains in reading comprehension scores for ESL readers in the experimental group. Thus, these findings confirm the recommendations of the NRP (2000), namely that reading comprehension strategies are more effective when used in combination. In summary, the results of the current study indicate that within six months of the introduction of direct/

explicit instructional techniques, ESL learners in the experimental group demonstrated a significant improvement in reading when compared to the control group.

To conclude, the present study was part of a larger project investigating both ESL educators' and ESL learners' experiences in the ESL reading classroom, with the present article reporting only the results of the intervention study. The positive experiences of both educators and learners are best demonstrated by the personal reflections of the following educator who was involved in this pilot project:

> *As an educator I feel the application of these methods has been extremely successful. I have also learned a lot as an educator, for teaching is a lifelong learning process. I have also discovered that as educators we deny the learners chances to become better readers in class. I think the techniques which I applied were crucial because I have inculcated the reading culture in my students. Further, they have learned to read critically and reflectively so that they have a clear understanding of their books. They now find English easier to learn than before. I also enjoyed helping them through the intervention and I will definitely use these techniques with my other learners who are struggling. (Female, Grade 6 educator in the Clocolan district in the Eastern Free State)*

Limitations

The author acknowledges that this is only a pilot study, hence the results cannot be generalised to all ESL learners. However, it paves the way for more longitudinal and specific studies that will investigate the underlying cognitive-linguistic and pre-reading skills that are the most important precursors for ESL learners' development. Although the present study did not report whether certain reading strategies were more effective than others, the results demonstrated that the application of a combination of direct/explicit coding strategies and reading scaffolding comprehension strategies were beneficial for the reading and spelling development of ESLs.

Pedagogical implications

Education is vital to consolidating the advances made in political and social reform, and all available resources should be used to research and develop programmes that have as wide an impact as possible, including all learners, irrespective of their linguistic backgrounds. Given the unacceptably low reading levels attained by South African learners, together with the paucity of research results available to support the use of evidence-based reading practices in South African readers in general, and more specifically in addressing the literacy and reading-related challenges of the majority of the ESL population, the present study attempted to shed more light on some of the areas in which research has limited or non-existent (Nel, 2005; Nel & Theron, 2008; Soares de Sousa *et al*., 2009). Positive outcomes from this community-based research project were threefold. First, it made a significant contribution to addressing an under-researched topic in South Africa, while concurrently making a significant contribution to the body of scholarly knowledge within this often neglected field of special education both in South Africa and internationally. Second, within a "response to intervention model" these findings can assist educators to reflect critically on their teaching strategies and methods and create classroom environments responsive to addressing diverse learners' needs. In doing so, preventative teaching measures and strategies can be put in place, rather than trying to "remedy" the literacy delays that result from incorrect teaching strategies and/or many other related intrinsic and extrinsic barriers to learning. Third, the knowledge generated through this project is available for relevant policymakers, and should strengthen their capacities to give guidance and support to educators responsible for addressing the needs of ESL learners who experience language and literacy barriers to learning.

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