INNOVATIVE STRATEGIES TO IMPROVE WORD READING, VOCABULARY AND LISTENING COMPREHENSION OF ESL READERS: A PSYCHO-LINGUISTIC PERSPECTIVE UTILISING MULTIPLE LANGUAGES

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Abstract
Research has shown that reading difficulties lead to poor academic performance and weak self-esteem and, negatively affect learners' motivation to read. Reviewing the academic and literacy achievements within the South African education context, several concerns have been raised about the poor state of literacy in our country, especially among English language learners (L2 learners). In addition South Africa's national assessment policy only allows a learner to fail once in a phase; consequently, many South African learners are pushed through the education system without the basic literacy skills to cope in higher grades. Emanating from the above, it is evident that innovative instructional methods are needed to support the literacy and reading development of South African learners. Moreover, researchers have argued that fundamental to ESL reading success, is learners' ability to recognise words (i.e. effective and fluent word reading), whilst they have also stressed the importance of vocabulary knowledge and linguistic comprehension. Embedded in a whole-language approach for reading development this experimental research utilised a pre-test/post-test research design to investigate the possible value of implementing alternative strategies and multiple languages to enhance the word reading, vocabulary knowledge and linguistic comprehension of Grade 3 ESL readers (n = 48). The core focus of this intervention programme inter alia involved strategies to enhance word learning and linguistic comprehension, utilising participants' L1 (i.e. Sesotho), the L2 to be learned (i.e. English) and additionally they were taught the basic signs and fingerspelling of South African sign language to compliment and strengthen the visual recognition and knowledge of words. Following the experimental intervention of six months learners were re-tested in November 2016; post-test results were very promising and have shown that experimental learners significantly improved in word reading, phonological awareness, vocabulary and linguistic comprehension. From a psycholinguistic perspective on reading, much emphasis has been placed on the role of language and linguistic skills and how they interact and influence reading development. Consequently, the findings of this study are very promising and have highlighted that innovative ways and multiple languages can be used to enhance word reading, vocabulary and linguistic comprehension in English, which in turn can contribute to better reading performance in general.

Keywords: Psycholinguistic approach to reading, multiple languages, Sign language, ESL learners, word reading, vocabulary knowledge, listening comprehension.

1 INTRODUCTION
Literacy is an ‘almost priceless treasure’: it is a building block for effective learning, which not only gives access to skills and facts, but also provides a mode of thought [1]. In defining the term “literacy” or “literacy development” researchers highlight the fact that literacy is an integrated process that involves language, as well as cognitive development, whilst reading and writing form the basis of literacy development [2]. Thus to be able to engage in optimal learning, the individual must be capable of reading and writing accurately. Equally important is that language is the vehicle of thought. Accordingly researchers [3] maintain that literacy constitutes different forms, which are linked through an integrated language stem, namely it involves oral language (listening and speaking), reading as well as writing.

From the exiting literature and research on literacy development, it is evident that many learners experience several challenges during the process of becoming literate. For example, they battle to learn to spell, read and write. These difficulties can be attributed to the constant interplay of various intrinsic and extrinsic factors that contribute to learners’ problems with literacy and academic achievement in general [4]. The reasons are widespread and vary from the low socio-economic circumstances of a large part of the population of our country, to education, which is not at an
acceptable standard – specifically it has been noted that many teachers have not been adequately trained to provide quality education to South African learners [5]. Contributing to it all, the extensive education of learners in a language, other than their mother tongue (L1), in most cases English (L2), exacerbate the crisis [5].

Since language and literacy development is an integrated process, it is important to focus on the language policies of South Africa, when we want to address our literacy challenges. Firstly, focusing on mother-tongue instruction, statistics have revealed that the majority of South African children are not educated in their mother tongue during the Foundation Phase of schooling [6], [7]. Secondly, the Monitoring Learning Achievement (MLA) Survey conducted in South Africa [8] has found that it is a common practice to employ under-qualified or unqualified teachers in the Foundation Phase, especially at rural schools. Unavoidably, these practices have contributed to South African learners’ meagre academic performances for decades, including their poor literacy and reading skills [8]. In addition, many Foundation Phase teachers have not been explicitly trained (whether formally at tertiary education level or informally, via workshops and in-service training courses) to develop literacy and reading of early-childhood learners in their mother tongue, especially with regard to reading development in African languages [8]. Thus it should be noted that the poor literacy skills of many South African learners cannot solely be attributed to second-language literacy instruction, as similar challenges are experienced with literacy development in African Languages as well as in English [9]. This has very important implications for the successful “transition” from the foundation phase (also known as Kindergarten, internationally) to the intermediate phase (i.e. Grades 4 to 6). The general assumption in South Africa has always been that basic literacy skills are mastered in the Foundation Phase, and that when learners enter the intermediate phase of schooling they are adequately prepared to make the change from “learning to read” to “reading to learn” [6]. In reality, however, this has demonstrated not to be apparent, because the majority of South African learners have not been sufficiently prepared to proceed to the intermediate phase of schooling (prior to and after 1994); consequently, many of them are not able to read as expected, with severe consequences for their academic attainment and literacy development.

Focusing on the LOLT (language of learning and teaching) policies of South African schools, as mentioned earlier, the majority of South African children are taught in English, despite the fact that only one in ten South African children’s mother tongue is English. In addition, the majority of English second-language learners are taught by teachers who also have a home language other than English [6]. Since many teachers, teaching in English has limited English proficiency and implements ineffective literacy and reading strategies, they struggle to address the needs of learners grappling with their second, third or even sometimes fourth language [6]. This South African phenomenon, namely “unskilled” teachers, who themselves have weak English language skills, is referred to as “the paradox of the primary school professional” [6]. Because they have limited subject and pedagogic knowledge of English, educators find it very difficult to reflect on their teaching practices, and/or create responsive teaching and learning contexts for English second-language learners. A further complication is the aspiration of many South African parents to have their children educated in English, because they believe it is the language of empowerment. The ideology that English is the most significant means of enrichment is instrumental in the move away from the home language, thereby enhancing subtractive multilingualism. This is a further factor contributing to poor literacy levels in South Africa, especially the literacy levels among ESL learners in our country, which is far from satisfactory. The aforementioned has been confirmed by the results of various literacy surveys and literacy assessments, which all paint a gloomy picture with regard to the current state of literacy in South Africa - not only in primary education, but also in high school and on the tertiary education level [9]. In addition South African statistics show that just 50% of learners that start school (i.e. in Grade 1) will progress to Grade 12, whilst at most 40% will pass Grade 12 [10]. These results further contribute to the inequality of the South African society.

The discussion above underscores the necessity to employ innovative instructional methods to support the literacy development of early-childhood ESL learners, especially learners in the foundation phase of schooling, to ensure a thorough literacy foundation for these children before they progress to Grade 4. Whilst acknowledging the interplay of various cognitive, linguistic and extrinsic challenges of South African learners, the researcher in the current study embraced a whole-language approach to literacy development in the selection of strategies to support the reading development of Grade 3, ESL learners. In support of a whole-language approach to literacy development, the researcher (i.e. author) draws on Cummins’ Linguistic Interdependence Hypothesis [11]. This hypothesis proclaims that a well-developed and embedded mother tongue provides a solid basis for the acquisition of a second language [11]. According to Cummins the mother tongue (L1) of the learner must continue to be
developed when the second language is introduced and the two languages must be developed together, and most importantly, the second language should not be developed at the expense of the first language or mother tongue. Consequently, in the present study, the researcher has utilized learner participants’ first language (i.e. their mother tongue), namely Sesotho to support the development of English literacy and reading (i.e. the L2 and language of instruction in the classroom at the sample school). In further support of Cummins’ viewpoint, reading is being viewed as a developmental process, which entails multi-layered cognitive and linguistic skills, for example, phonological awareness, letter-sound knowledge (i.e. alphabetic principle), working memory, word decoding, fluency, word reading, vocabulary and linguistic comprehension. In the present study, learner participants were also taught the basic signs and finger-spelling of South African sign language to compliment and strengthen the visual recognition (i.e. word reading) and knowledge of words (i.e. vocabulary) in their L1 and L2’s; with the ultimate aim being the improvement of their linguistic/reading comprehension.

2 METHODOLOGY

This research reports the results of an empirical investigation, conducted over a period of six months. The author utilized an experimental pre-test/post-test research design.

2.1 Participants and sampling

In the present study, Grade 3, ESL learners (n = 48) were purposively drawn from one pilot school in the greater Free State Province, South Africa. The following criteria for inclusion were considered:

- Participants were in Grade 3;
- They were between 8 and 10 years old;
- They were English Language learners whose mother tongue was Sesotho (i.e. one of the 11 officially recognised languages of South Africa);
- They experienced significant challenges in reading and reading comprehension (as measured by the battery of tests – see measuring instruments).

The Ethics Board of the Faculty of Education, University of the Free State, South Africa, approved this study and granted ethical clearance for this research to be carried out (UFS-EDU-2013-0074). Informed written consent was also obtained from the principals, teachers and parents from the participating school. The learner participants’ identity has been kept anonymous, and no identifying information of any learner will be published in this article. This research was partially funded by the National Research Foundation of South Africa.

2.2 Data-gathering strategies and measuring instruments

The following measuring instruments were administered as pre- and post-test measures:

- University of Cape Town Reading Tests (UCT): Word reading and speed-reading (i.e. reading fluency);
- Sutherland English Phonological Awareness Test: It evaluates phonological awareness at the levels of syllable, onset-rhyme and phonemes; and
- Reading tests from the University of Edinburgh: It evaluates children’s vocabulary and reading comprehension.

2.3 Procedures

Only learners whose parents gave written informed consent were assessed. All assessments were conducted individually during the school day in a separate resource room. Learners who met the criteria for inclusion were randomly assigned to either an experimental or a control group. The intervention program was implemented over a period of six months. Learners in the comparison group were assisted via didactic assistance (i.e. extra classes during the period just before first break, by one of the postgraduate students, working on the current literacy project). The intervention study of the experimental group was carried out over a period of six months, and concluded in November 2016. Learners were supported in small groups of four to six learners during normal school hours in a
separate classroom (i.e. resource room), via the pull-out system (by a qualified support or remedial teacher and a postgraduate student who is a fluent user of South African Sign Language).

2.4 Intervention programme

As mentioned above (see Procedures), learners were randomly assigned to either the experimental or comparison group after the administration of the pre-tests. The intervention sessions were conducted by one of the support teachers at the school (i.e. a qualified remedial teacher, who is a native Sesotho speaker and also fluent in English) and a postgraduate masters’ student who, as mentioned before, is fluent in South African Sign language.

Drawing on existing literature and widely supported by reading research on dual and bilingual language development, the author in collaboration with the support teacher at the pilot school, opted for storybook reading to promote the English language and reading development of ESL learners in the current study. Accordingly, researchers have argued that by listening to stories, children can improve their vocabulary (in a second language), including learning about the written syntax of the language, develop phonological awareness and concepts of print, all of which are closely associated with learning to read and write [12], [13]. Following the proposed strategies of Gillanders and Castro [12] as a guideline, the following steps were considered when exposing the ESL learners in the current study to storybook reading (see Figure 1, below):

![Figure 1. Strategies to develop ESL reading (Gillanders & Castro, 2011)](image)

In the discussion below, the author will highlight the key features of this reading intervention programme, as adapted from Gillanders and Castro [12].

Steps 1 and 2:

- Provide clear instructions for learning the core words, prior to and during the storybook-reading session (this includes both high frequency and thematic words - i.e. core words from the storybook of that week);
- Ask “W-questions” (e.g. “Where is the girl?” “What is she doing?” “Why is she laughing?”);
- Point to illustrations, show objects, use gestures and repeat the questions;
- Provide sufficient opportunities for children to study the words, this inter alia includes:
  - Repeat the words aloud, and define the words in terms the children can understand;
  - Discuss the characteristics of the target word, including the word’s meaning;
  - Use both the home-language (i.e. the Sesotho word) and SASL sign equivalent for the English target word (also see “step 3’);
  - Formulate an oral sentence explaining the meaning of the target word;
  - Match the target word with a picture and paste the word and picture on the “word wall” in front of the class;
  - Whilst looking at the flash card on the word wall, the word is read aloud (together as a group), followed by practicing the fingerspell-version of the word;
  - In the next step, the word is finger-spelled again, whilst sounding it out.
• Before reading the story aloud, introduce the target or thematic words in the story book, using a picture walk¹;
• Use the repetitive phrase throughout the day during different classroom activities.
• Invite children to be actively engaged in the storybook reading by asking them to show objects or pictures to the group at the appropriate time in the story.

Note: During the initial stage, i.e. prior to the storybook reading commenced, fingerspelling was taught to all ESL learners participating in the intervention program (i.e. with the assistance of one of the postgraduate masters’ students, who is also a third-year sign language student). Sign language, namely the SASL sign equivalents for target words (i.e. thematic words from the story book) were taught during each lesson (that is prior to storybook reading).

Steps 3 and 4:
• Read (i.e. translate) the story in the home language during the first storybook reading session; and then read it in English during the second session (or subsequent session);
• Each learner develops his/her own picture vocabulary journal (i.e. words and pictures, either drawn by the child or newspaper/magazine pictures, pasted next to the target words);
• Definitions of target words are provided both in the home language and English, to take home each day, for reinforcement;
• Buy or make enough copies of the story book (provide the translated versions as well) – learners take copies home for parents/older siblings or volunteers to read to them;
• Read the story several times during the week;
• Listening to the story several times allows children to consolidate their learning and deepen their understanding of the words;
• Include/use culturally relevant and authentic books and reading themes;
• Provide/ensure sufficient time for children to engage with new vocabulary (both through direct instructional activities and worksheets, whilst also informally during play and fun activities in the resource room or classroom);
• Encourage children to answer questions in their home language if they are not yet confident or able to answer in English; the teacher or other learners can then repeat the answer(s) in English;
• Teachers who are not familiar with learners’ home language, are encouraged to learn some key words related to the story in the children’s home language, so that they can acknowledge children’s efforts to communicate;
• Provide opportunities for children with several opportunities to complete sentences and answer questions, utilizing the repetitive phrase(s) they were taught in “step 1”.

Step 5:
• Encourage children to retell and/or to dramatize the story once they have heard it several times;
• This helps children to practice using the vocabulary words and enhance their understanding of the story;
• Expand the ideas in the book to other classroom or learning activities and subjects;
• By using the core vocabulary or target words in other classroom situations or contexts provides the learners with opportunities to use and practice the words – so they become more familiar and also confident to use the newly acquired vocabulary words.
• Involve parents: Encourage children to take one additional story book per week from the reading corner home to read together with the parent or other siblings;
• Create additional opportunities for children to share and retell the storybook in the classroom;

¹ A picture walk is when the teacher takes the children through the story, pointing to the illustrations without reading the text [12].
• Individual learners complete motivational charts for additional books they read and share (individual and class accolades are given);
• Continuous/on-going process: New vocabulary words are added to their lists in their vocabulary picture journal on a daily basis.

3 RESULTS

The quantitative data were analysed using Mann-Whitney U-tests. From the results presented in Table 1, it is evident that the experimental and control groups were evenly matched prior to the intervention study. This was confirmed by statistical analyses using SPSS 22.0 [14], which yielded the following results for age and pre-test scores of the reading variables included in this study: Age (p = 0.81; U = 1081); Reading fluency: (p = 0.63; U = 264); Phonological awareness (p = 0.92; U = 283); Word reading: (p = 0.65; U = 265.5); Vocabulary (p = 0.49; U = 254) and Linguistic comprehension: (p = 0.50; U = 255).

Reflecting on the post-test scores presented in Table 1 (below), it is evident that the post-test scores of ESLs in the experimental group showed a considerable improvement, with regard to reading fluency, word reading, phonological awareness, vocabulary and listening comprehension, when compared to learners in the comparison group. Although learners in the comparison group also showed improvement, it was not statistically significant. With regard to the reading outcomes of ESLs in the experimental group, Mann-Whitney U analyses yielded significant results for: Reading fluency: (p = 0.00; U = 0); Phonological awareness (p = 0.00; U = 125.5); Word reading: (p = 0.00; U = 0); Vocabulary (p = 0.00; U = 62) and Linguistic comprehension: (p = 0.00; U = 84.5).

4 DISCUSSION AND CONCLUSIONS

From the results reported above (see paragraph 3), it is evident that in the current study, the implementation of storybook reading, embedded in the whole-language approach, also known as the psycholinguistic viewpoint on reading development, has demonstrated to be very successful in enhancing the reading performances of ESL learners. In the present study, the author in collaboration with the classroom teacher adapted the strategies proposed by Gillanders and Castro [12], which inter alia involved the usage of multiple languages (i.e. Sesotho, English and SASL); and innovative ways to practice new vocabulary words on a daily basis, including storybook reading, both in ESL learners' home language and their L2 (and further supported by fingerspelling and SASL signs). This was complimented by direct instructional activities to enhance reading fluency, word reading and phonological awareness.

Focusing on the benefits of storybook reading to enhance ESL learners’ reading in general, the experience of learners in the current study concurs with findings from the literature which suggest that interactive storybook reading provides a useful context for language learning, not only for typically developing children, but also for ESL learners and children with learning disabilities [15]. Importantly, the strategies teachers utilize to scaffold children’s use of language during storybook reading have demonstrated to be the key factor in previous studies [16]. In the present study the support teacher
and post-graduate student who facilitated the intervention sessions, experienced the storybook reading as very positive. They combined the usage of storybooks with the direct teaching of target words, using learners’ home language, English and sign language – which were a fun activity for the children. Especially the introduction and utilization of sign language equivalents to the target words (in the resource room), evoked a lot of positive experiences among the ESL learners. The children were very enthusiastic and interested to learn the fingerspelling and sign language signs of the target words. Reviewing the literature on the possible benefits the introduction of sign language may have for hearing learners, especially ESL learners and learners with learning challenges and disabilities, not much research has been conducted on this topic. For deaf learners, it has been hypothesised that both fingerspelling and sign language can serve as a cross-modal bridge (i.e. a “chaining effect”) between ASL and English in that it is a manual representation of the English alphabet [17]. Thus researchers hypothesise that fingerspelling and sign language may contribute to deaf learners’ literacy skills, by connecting (or acting as a link) between the fingerspelled words, printed words, and ASL signs [18.] Focusing on the possible benefits of sign language for hearing learners with language delays, in a recent study, conducted in South Africa, by Van Staden and Purcell [17], ESLs with auditory processing disorders (APD) were exposed to orthographic (i.e. visual) coding strategies and fingerspelling to enhance their spelling of English words. They concluded that the utilisation of fingerspelling and sign language had mutual benefits for the sample and that spelling strategies that draw on the orthographic route of spelling development (i.e. multi-sensory visual and manual/tactile coding strategies such as fingerspelling) was beneficial in enhancing the spelling performances of ESLs with APD in their study. Focusing on the present study, the positive experience of ESL learners in learning fingerspelling and sign language have been observed (as mentioned above) – thus lending support to previous research, for example, Williams and Newman [18] who have argued that fingerspelling and sign languages have positive connections with both orthography and reading.

To summarise, in the present study, the utilisation of storybook reading embedded in a multiple language methodology (i.e. Sesotho, English and SASL) has proven to be very successful - not only did it promote ESL learners’ vocabulary, word reading and phonological awareness, but also their listening comprehension. Additionally, in the current study, the researcher and support teacher also involved the parents or other important adults in the children’s lives, and in some instances, older siblings were approached, to assist with the storybook reading at home. This has proven to be very successful and learners were very enthusiastic about taking additional books from the reading corner to share and read at home. Parents and other significant people were also encouraged to provide suitable explanations or definitions for certain English phrases or vocabulary words in the home language – these were added on a daily basis to the children’s picture vocabulary journal. Although not the core aim for the study, the above concurs with previous research, which has demonstrated positive outcomes for the use of a parent-implemented dialogue reading or shared reading at home to enhance language development and emergent literacy skills of pre-school children [19].

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