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Exploring the potential value of alternating Philosophy with Picture Books (PB) with the Integrated Approach to Literacy Instruction (IATLI) to support two boys with dyslexia.

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2014-01-06
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Exploring the potential value of alternating Philosophy with Picture Books (PB) with the Integrated Approach to Literacy Instruction (IATLI) to support two boys with dyslexia.

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Submitted in partial fulfilment of the requirements for the degree
Master's in Education in the Faculty of Humanities
University of the Witwatersrand

November 2012

DECLARATION

I, Helen Harper, hereby declare that the contents of this research report represent my own unaided work and that the research report has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not those of the University of the Witwatersrand. I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong. I have followed the required conventions in referencing the thoughts and ideas of others. I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.

Helen Harper _____

Place _____

Date _____

ACKNOWLEDGEMENTS

A Special word of thanks to the following people:

Supervisors Professor Karin Murris and Mrs Kathy Krishnan for their support.

Doctor Elizabeth Walton for her support, guidance and encouragement.

Derek Schickerling for loving and supporting me throughout my studies.

Helen Harper (senior), for encouraging and supporting me.

Patrick Jaki, for his encouragement, guidance and inspiration.

Amy Anderson, Ben Gapare and Karina Andrea for their friendship and support and for the technical edits.

The participants in this study for sharing their experiences with me.

ABSTRACT

This study explored the potential value of alternating Philosophy with Picture Books (PB) within the Integrated Approach to Literacy Instruction (IATLI), to support two boys with dyslexia. PB was chosen in this explorative study because of its use of visual instruction, which a child with dyslexia is likely to respond more favourably to, because visual modes of learning is more complimentary to such learners. PB originates from the approach Philosophy with Children (P4C) that supports a pedagogy involving communicative virtues and collaborative thinking. Such attributes are likely to add value to an intervention as it may lead to the development of meta-cognitive strategies, which could both support and motivate their learning. The Integrated Approach to Literacy Instruction (IATLI) was also chosen in this explorative study because research suggests that children with dyslexia struggle with the acquisition of phonological awareness. One of the aims of the IATLI is to develop such a weakness. This study explores in particular how alternating the IALTI and PB could possibly add value in supporting two boys with dyslexia.

The responses of both boys to the two approaches, in-depth interviews with both boys' English teachers, and developmental diaries kept by the English teachers, the researcher, as well as the participants was analysed utilising thematic coding. In addition, pre and post-testing was administered and added to the triangulation of this study. The main findings indicated that alternating the IATLI and PB was valuable for these two boys and led to some improvement, relating to their personal development, positive attitude to engagement in remedial therapy, improved self esteem and areas of literacy improvement. It did not however result in significant improvement, as the boys did not transfer the skills taught in remedial therapy to the classroom, nor was significant improvement noticed by their English teachers.

Key words: dyslexia, remedial therapy, IATLI, PB.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Dyslexia is considered to be a learning difficulty that negatively affects children's literacy abilities. It is a supposed inherited condition that makes it difficult to read, write, and spell in one's native language, despite displayed average intelligence (Ormod, 2006). There are three main areas of possible underdevelopment that have been identified in individuals who are currently dyslexic (Hulme and Roodenrys, 1995). These areas include "phonological awareness", "rapid naming," and "phonological memory" (Hulme and Roodenrys, 1995, p.71). Phonological awareness refers to an individual's ability to correctly identify the correct sound to the phonological symbol, for example the letter 'P' makes the sound 'p'. Rapid naming refers to one's ability to process information and utter it at an appropriate pace. Lastly, phonological memory is underdeveloped when one's ability to obtain and remember sound symbol associations automatically is impaired. It is necessary to point out that not all three these areas are always underdeveloped in children with dyslexia. However, for a child to be diagnosed with dyslexia, "one or more deficits need to be present" (Hulme and Roodenrys, 1995, p.75). Intervention to support children with dyslexia is an area that would benefit from further research as this would allow for a better understanding of the affected children.

The Integrated Approach to Literacy Instruction (IATLI) is a literacy intervention programme that could support children with dyslexia. It is derived from a combination of various approaches (see details in Chapter Two) (Harcombe, 2001). It aims to improve the development of certain skills (reading, writing, and spelling) in children with literacy difficulties. The IATLI has also been identified as an effective tool in the promotion of both academic and emotional well-being, suggesting that the IATLI contributes to the children's academic development (Harcombe, 2003). Unfortunately, the IATLI is not well researched.

Therefore, its value has neither been proven nor established. Although, Harcombe (2003) indicates that the IATLI is likely to improve literacy skills in children with dyslexia, there is no supporting basis for this assumption.

Philosophy Picture Books (PB) is derived from the approach Philosophy for Children (P4C) which supports a pedagogy that includes communicative virtues, such as tolerance and respect across differences (Murris, 2009). It also includes reasonableness, which is defined as inclusive of four virtues: objectivity, accepting fallibilism, maintaining a pragmatic attitude, and judiciousness (Burbules, 1995). The continuous inclusion of these elements creates critical, creative, caring, and collaborative thinking within the remedial therapy environment which supports children's needs because it encourages them to engage and develop these virtues. An essential requirement of P4C is critical thinking. It is the ability to think about thinking. This concept is called "meta-cognition" (http://wwwcriticalthinking.org, May 2010). Fisher (1998) explained that meta-cognitive content includes the process of improving ones own thinking and reasoning, which is supposed to lead to a better understanding of oneself and others. Moreover, P4C includes a pedagogy that promotes and develops virtuous communication, critical thinking, and personal reflection (Murris, 2009). These attributes enrich the IATLI and is valuable to the remedial practice as personal and academic development is encouraged. This is assumed on the basis that it provides a new perspective on literacy improvement. This, however, has not been proven. Alternating these approaches (IATLI and PB) is the foundation of this explorative study.

The focus of this study is to explore whether alternating PB with the IATLI adds potential value to the remedial support of two boys with dyslexia, within the time frame of three months. This explorative study includes two boys, who attend the same independent school. The two boys in question were 11 and 12 years old at the onset of this study. Both the boys in this study have received a prior diagnosis of dyslexia. Consequently, remediation was initiated which consisted of two, half an hour individual remedial therapy sessions a week that focused on the IATLI intervention for approximately two years.

The focus of the remediation was to improve their literacy skills. Lerner (1993) has indicated that support for children with dyslexia should be in a small group or, if at all possible, one-to-one to ensure progress.

1.2 Research Problem

In a gender sensitive world, people may wish to avoid preferential treatment for children based on gender, but current research suggests that boys may need special attention since they seem to have a higher prevalence of reading disabilities (Denton, Hasbrouck, and Sekaquaptewa, 2003). Dyslexia is widely considered as a reading disability. Children with dyslexia can improve their literacy abilities by learning educational skills that assist them in developing their phonological awareness, rapid naming and phonological memory (Engelbrecht, 2001). Improving children's educational skills and literacy ability could include the implementation of approaches such as the IATLI and PB. Treating dyslexia within remedial therapy for the two boys in this study has proven to be challenging due to the following noted aspects. To date, the IATLI has solely been utilised to develop literacy skills with the two boys in this study. Progress seems to have been limited, due to their struggle to keep up with their classroom demands in spelling, reading, and writing. In addition, an inability to transfer the skills taught in remedial therapy into the classroom was evident, which further contributed to their poor performance maintained in literacy (reading, writing, and spelling) tasks. Consequently, it is felt that alternating PB with the IATLI would assist with supporting these boys. This is because less emphasis would be placed on reading, spelling and writing the traditional way. More emphasis will thus be placed on visual strategies, therefore not focusing on their weakness, but on their supposed strength. PB would emphasise visual techniques to develop their problem solving skills, critical thinking and their sense of empowerment. This adds value to their intervention as it creates a motivational drive for individual success.

1.3 Rationale

Ormod (2006) claims that almost all classes in a mainstream school have children who experience varied learning difficulties. It could be said that most of these children improve when given quality attention and support by teachers, therapists, and parents. Besides learning difficulties, these children often experience added emotional and social problems (Kriegler and Skuy, 1996). Effectively addressing these various barriers to learning is vital to support the individuals with dyslexia (Ormod, 2006).

In South Africa, some of the recent approaches aimed at improving dyslexics literacy skills, include approaches such as the DILP (Dyslexia Institute Literacy Programme, 2000). DILP originated in England in 1993 and has since been utilised there to train teachers and individuals to provide adequate interventions for children diagnosed with dyslexia. Another intervention, recently utilised within the South African context focused on a systematic approach to fluency and comprehension, better known as Retrieval Automaticity Vocabulary Elaboration Orthography (RAVE-O) (Wolf, Miller, Donnelly, Adams, Terry and Joffe, 2006). RAVE-O originated in the United States of America in 2006, as a need was identified to address the prevailing illiterate learners. Both these approaches have received adequate research pertaining to the improvement of literacy skills. Improving dyslexics educational skills and literacy ability with alternating the IATLI and PB has not been researched .Therefore, exploring whether alternating the IATLI and PB adds value to the remedial support of the two boys with dyslexia is important because it creates a learning intervention that is applicable to their learning difficulty as well as their social and emotional development. To add, exploring the potential value of this combination is the foundation of this explorative study as this assists in formulating a framework to support children with dyslexia. Moreover, studying how PB enriches the IALTI also assists in formulating this framework, as an awareness of these elements creates the inclusion of enriching elements. This is supported with evidence from P4C that encourages intellectual resourcefulness and flexibility, which in

turn enables children to manage the disconnectedness and disintegration of existing curriculum and remedial therapeutic practices.

It specifically includes the improvement of reading (Lipman, Sharp and Reed, 2005), because understanding is expected from what is read and material is thoroughly evaluated to promote understanding (http://wwwcriticalthinking.org, May 2010). Studies have also shown that children develop their self-esteem, capacity for empathy and ability to work with others using the language of reasoning, speaking and listening and general cognitive capacity through the use of P4C (Haynes, 2006). Therefore, it is important to investigate the boys' reaction to the combination of PB and the IATLI, as this would indicate if the aforementioned virtues are present in this exploration. P4C also develops independent thinking.

Independent thinking is absent from the current practise of the IATLI. This is unfortunate as it is vital for various reasons. A key reason is that independent thinkers strive to include recognised applicable knowledge and insight into their thought and behaviour. As a result independent thinking also promotes self-monitoring (http://wwwcriticalthinking.org, May 2010). Consequently, the evaluation of written expression, reading and comprehension is encouraged which could account for careless errors made by children. If children are taught through this process to be critical problem-solvers, who thoroughly evaluate situations and suggest solutions, not independently of, but in relation to one another, it should develop their analytical skills, which in turn should improve their comprehension ability. Critically, problem-solving should not only empower children with meta-cognitive strategies, but it should also motivate them to attempt tasks that currently present as a challenge for them. In this explorative study, literacy skills form part of these challenges.

1.4 Research Questions

1.4.1 Does alternating Philosophy with Picture Books (PB) with the Integrated Approach to Literacy Instruction (IATLI) potentially add value to the remedial support of two boys with dyslexia?

- **a.** How did the boys respond to the combination of the IATLI and PB?
- **b.** Does PB enrich the IALTI?

1.5 Research Objectives

This study intends to explore if alternating the IATLI and PB would potentially add value to the remedial support of two boys with dyslexia. In addition, it investigates the boys' response to alternating PB and the IATLI as well as whether or not PB enriched the IALTI. These objectives will be reached in a time frame of three months, during which the two boys will attend their usual individual remedial therapy slot which is twice a week for half an hour at a time. Meanwhile PB and the IATLI will be alternated to explore its potential value for these two boys.

1.6 Outline of the research report

Chapter 1: Provides the introduction, research problem, rational, research questions and research objectives.

Chapter 2: Primarily discusses the core components of this study, including P4C, PB and the IATLI.

Chapter 3: Discusses the research design, research methodology, data sources, method of data analysis, validity/reliability and ethical considerations of this study.

Chapter 4: Discusses the research findings.

Chapter 5: Includes a discussion of the conclusion of this study.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

For many decades the process of reading has fascinated and engaged the attention of theorists, researchers and practitioners in many disciplines because it is an important skill. It is evident that children require reading for learning and for successful future integration at school, college and university respectively. Reading creates awareness, correct identification, and provides individuals with knowledge. Harcombe (2001) adds to this, as she believes that the increasing knowledge either qualitatively or quantitatively is directly proportional to reading. In other words, the more developed and learned one becomes, the more the reading process should increase. This parallel burgeoning of knowledge meant that many questions about the ways in which we develop reading and writing skills began to be answered. Yet it also remains evident that the number of children experiencing difficulty with acquiring literacy skills is escalating (Montgomery, 2007). Muter (2005) supports this statement as she claims that an increasing number of children are faced with a prevalent challenge when they are expected to acquire literacy skills. Teachers are confronted with a problematic teaching situation, especially when one considers that children with dyslexia struggle to manage with the amount of written work in a classroom (Coffield, 2005). It can be assumed that support, for teachers and pupils with dyslexia needs to receive adequate attention. Even though there have been approaches aiming at providing teachers with the needed support, it has seemingly not reached all of those concerned. Therefore, a need has been identified to keep exploring alternative methods of aiding children with dyslexia with acquiring literacy skills. Firstly, this literature review discusses dyslexia.

Secondly, a description of two interventions that have been introduced to the South African context to support children with dyslexia (RAVE-O and the DILP programme) will be elaborated upon. Thirdly, this literacy review will explore the IATLI, and the methodologies contributing to it, as well as P4C which contributes to PB. Lastly, it will discuss PB and a comparison will be made between Piaget and Vygotsky's influences on PB and the IATLI.

2.2 Dyslexia

2.2.1 Definition of dyslexia

Adelman and Taylor (1992) have identified dyslexia as a difficulty with learning and the application of learnt skills. The word dyslexia was originally derived from Greek; 'dys' meaning poor and 'lexia' meaning word or language. According to the British Dyslexia Association (1995) the terms "learning disability" and "dyslexia" are frequently used synonymously.

In light of this information dyslexia is a general term for reading and language disorders. Fridjhon, Green, Lomofsky and Skuy (1993) claimed that from a developmental point of view, dyslexia is a genetically based language disorder marked by an unusual difficulty for verbal ability. Children with dyslexia who are undiagnosed or untreated are at high risk of academic and scholastic underperformance or failure, no completion of high school or college, and possible socio-emotional problems associated with school failure and unemployment as adults. (Fridjhon, et al., 1993).

Aylward, Richards, Berninger, Nagy, Filed, Grimme, Richards, Thomson, and. Cramer, (2003) explained that differences between people with dyslexia and a good reader include biochemical variations in specific areas of the brain. Evidence therefore suggests that dyslexia is best understood as the consequence of failures in multiple brain regions in a complex functional reading system and in functional disconnections between these regions that make it difficult to process language sounds (Hulme and Roodenrys, 1995). However, a growing body of research documents the role of morphologic awareness in reading and reading disability.

Morphologic awareness refers to the understanding of how word parts contribute to word meaning, for example, the same spelling 'er' in a morpheme has the same sound as in the word 'builder' (Reid and Moats, 1997). This suggests that the alternation of the IALTI and PB should support children with dyslexia as the IATLI focuses more on phonological awareness (bottom-up) and PB focuses more on meaningful approaches (top-down).

Although dyslexia is seen as a barrier to learning, individuals with this barrier can obtain strategies to assist them with reading and writing (Hulme and Roodenrys, 1995). It is hoped that this statement is supported by the findings of this study.

2.2.2 Evaluations to determine dyslexia

A formal evaluation is "essential to determine if a person is dyslexic", individuals may be tested for dyslexia at any age (Hulme and Roodenrys, 1995, p.71). Assessment batteries that are selected will vary according to the age of the individual. Assessment has three main functions: diagnosis, delineation of specific learning difficulties and guide to remediation.

Consequently, assessment should be functional (to identify what is getting in the way of learning) and descriptive (to identify what can be done to further learning) (Barton 2003, Austin Area Branch of the International Dyslexia Association, 2004). A sub-test that proves to be significantly challenging for children with dyslexia includes the "Rapid Automised Naming" sub-test. A difficulty with Rapid Automised Naming is used to refer to children who have "difficulty with word finding" (Hulme and Roodenrys 1995, p.75). Children with this type of language delay cannot quickly and automatically name objects and are slow at recalling the correct words. Slowness in naming and word finding is an accurate predictor of later reading and learning disabilities. Since reading is "not a single skill, but a linked series of sub-skills, which leads to information processing competencies," the ability to rapidly name objects is important (Hulme and Roodenrys 1995, p.76). This experienced difficulty is probably due to memory retrieval problems (Lerner, Jacobs, and Wertlieb, 2003). Beck and Juel, (1995) support the notion that a difficulty in Rapid Automised Naming could affect a child's reading ability. They claim

that it is generally accepted amongst reading scientists that the primary manifestation of developmental reading disability (RD) is the inaccurate and dysfluent decoding of single words out of context. This is because children with reading problems cannot rapidly and accurately link sounds to symbols in an alphabetical orthography.

Hulme and Roodenrys, (1995) claimed that reading involves the correct and rapid identification of visual stimuli with letters and words. The processing of visual stimuli depends not only on the integrity of the peripheral and central visual system but also on the attention system. Hulme and Roodenrys (1995) believe that there is a general attention deficit to visual stimuli relating to the formation of letters in dyslexia. This could possibly be related to problems with recruitment of the necessary cognitive resources for the performance of complex reaction timed tasks and for fluent reading.

Therefore, the relationship between complex reactions to timed tasks and for fluent reading is not yet fully understood (Heiervany and Hugdahl, 2003). It has been argued that if reading fluency and delayed reactions to timed tasks are identified as areas of difficulty, remediation should begin immediately (Barton, 2003 and Austin Area Branch of the International Dyslexia Association, 2004).

An assessment battery that is considered an accurate indicator of not only a child's rapid naming ability but also phonological awareness and phonological memory is the C-TOPP. The C-TOPP assesses phonological awareness, phonological memory and rapid naming. Mather and Wendling (2012) identified that a deficit in one or more of these kinds of phonological processing abilities is viewed as the most common cause of learning difficulties in general and of reading disabilities in particular. Mather and Wendling (2012) claim that the Phonological Awareness Composite Score measures the test-taker's awareness of and access to the phonological structure of oral language, both of which are important tools for beginning readers to understand relations between written and spoken language. A deficit in phonological awareness is viewed as the hallmark of reading disability or dyslexia. The Phonological Awareness Composite Score comprises the standard score of the subtests of Elision, Blending Words, and Sound Matching.

Elision measures the ability to remove phonological segments from spoken words to form other words and Blending Words measures the ability to synthesise sounds to form words. Sound Matching measures the ability to match words on the basis of initial and final sounds (Mather and Wendling 2012).

In addition, Mather and Wendling (2012) stated that the Phonological Memory Composite Score measures the test taker's ability to code information phonologically for temporary storage in working or short-term memory. A deficit in phonological memory is common in children with dyslexia and is likely to impair decoding of new words and both listening and reading comprehension for complex sentences. The Phonological Memory Composite Score comprises the standard score of the two subtests, Memory for Digits and Nonword Repetition. The Memory for Digits subtest measures the ability to repeat numbers accurately while the Nonword Repetition subtest measures the ability to repeat nonwords accurately (Mather and Wendling 2012).

Lastly, Mather and Wendling (2012) explained that the Rapid Naming Composite Score measures the efficient retrieval of phonological information from long-term or permanent memory and execution of a sequence of operations quickly and repeatedly. A deficit in this area is normally associated with dyslexia.

Efficient retrieval of phonological information and execution of sequences of operations are required when readers attempt to decode unfamiliar words. The Rapid Naming Composite Score comprises the standard scores of the Rapid Colour Naming and Rapid Object Naming subtests. The Rapid Colour Naming subtest measures the ability to name colours rapidly and the Rapid Object Naming Subtest measures the ability to name objects rapidly (Mather and Wendling 2012).

The definitions in this section illustrate that dyslexia is not the result of poor motivation, sensory impairment, lack of intellectual ability, inadequate instructional or environmental opportunities or any other limiting conditions, but may co-occur within these.

2.2.3 Sub-disorders found in children with dyslexia

Hulme and Roodenrys (1995) observe that dyslexia presents numerous sub-disorders. These sub-disorders usually affect auditory processing, visual processing and phonological awareness.

2.2.4 Auditory processing

As a sub-disorder, auditory processing problems constitute a variety of delicate components that are interacting with one another. These problems include: auditory perception, auditory reception, auditory discrimination and auditory association.

Lerner, et. al. (2003) defined auditory *perception* as the ability to distinguish or interpret what is heard. It provides an imperative pathway for learning. Children with auditory perception difficulties do not have hearing problems; rather the problem lies in auditory perception. Children may express this by not listening, not paying attention, or pretending to understand what is heard. Furthermore, a*uditory discrimination* is the ability to hear the likeness and difference in different sounds (Lerner, et. al, 2003). It is not the inability to receive and hear sounds. Children may confuse similar words that differ by one phoneme, or will not be able to identify rhyming words or differentiate between phonemes.

Children with deficits in auditory discrimination skills usually have a difficult time with the phonics approach to reading and have trouble associating sounds with their visual symbols, which has been identified as vital in learning to read and spell (Warner, 1980 and Lerner, et. al, 2003). *Auditory association* refers to the ability to draw relationships from what is heard or the ability to manipulate linguistic symbols internally.

The central process is therefore making the association of relating what is heard to what is stored and of responding to this in a meaningful way. Children with a barrier in this area often have problems with abstract reasoning, (an area P4C could assist with) and displaying poor concept formation in verbal responses.

Children with this problem are slow to respond, need time to contemplate over a question and may have difficulty in comprehending directions (Warner, 1980 and Lerner, et. al, 2003).

2.2.5 Visual Processing

As with the auditory processing disorders, the visual processing disorders also comprise various subtle components that interact with each other. These disorders are problems with perception, discrimination, visual-motor integration and visual-spatial integration. Remediation should take care of initial perceptual problems first, if they exist (Warner, 1980 and Lerner, et. al, 2003). Lerner, et, al (2003) explained that *visual perception* plays a significant role in school learning, especially in reading. Children who have difficulty in tasks that require visual discrimination of letters, words, geometric designs and pictures will most probably learn better from auditory information, if auditory processing problems do not exist. Children with visual perception difficulties will have problems learning the 'traditional way' of reading (Warner, 1980; Gearheart, and Lerner, et. al, 2003). *Visual discrimination* is the ability to differentiate one object from another. It is the skill that enables matching identical letters, words, numbers, pictures, designs and shapes. The ability to discriminate letters and words visually becomes crucial in learning to read. Children who can identify letters when they are preschoolers tend to do better at reading (Gearheart, 1985; Harwell, 2001 and Lerner, et, al 2003). Harwell (2001) explained that symptoms of a weak visual discrimination include messy work with poor legibility and spatial planning.

The perception of spatial relations is the ability to perceive the position of two or more objects in relation to oneself as well as in relation to each other (Warner, 1980). If the senses do not work together correctly, children may not have an accurate perception as to their position in space. Children may not understand concepts such as up/down, and may perceive "b" as "d" or "24" as "42". This makes it extremely difficult to learn to read, write, spell and do arithmetic (Landsberg, 2005 and SIRRI Sensory Integration, 2004).

2.2.6 Phonological awareness

A deficit in phonological awareness refers to children's inability to focus on and manipulate phonemes/sounds in spoken words (Hulme and Roodenrys, 1995). Phonemes are generally described as abstract units of language or the smallest units constituting expressive language (Vellutino, Fletcher, Snowling and Scanlon, 2004). Learning to reflect about the phonemes of language seems to be more difficult than learning to understand and utilise language. Vellutino et al, (2004) suggests that word identification problems themselves are causally related to deficiencies in phonological awareness, alphabetic mapping and phonological decoding that lead to difficulties in establishing connective bonds between spoken words and written counterparts. As a result academic performance is negatively affected. A phonological disorder is the ability to read familiar words by using the whole word method but having difficulty "sounding out" words that are new or letter-to-sound. Successful beginning readers must be aware of phonemes within words to understand that "cat" and "hat" differ in a single phoneme. Children with poor phonological abilities are unable to differentiate the number of sounds within a word such as "cat" (Lerner, et. al, 2003). Written English is an alphabetic system with written letters of the alphabet representing speech sounds.

If children are unable to reflect about the sound elements of language and to perceive the sounds within words, the alphabet system will remain a mystery to them (Wolf, 2007). Torgesen (1998) suggests that as children become aware of the phonological system, they gain entry to the alphabet system. Phonemic awareness is consistently the stronger predictor of emerging reading skills in children, than letter knowledge (Wolf, 2003). Extensive repetition and focus of the alphabetical sounds provided by a remedial therapy phonics intervention (IATLI) should, seemingly, be helpful in making children more aware of the component sounds of speech.

Supporting this argument is the notion that if the limiting factor for children is encoding of sounds and sound combinations, drill and repetition should support and improve fluency and automaticity, however it will omit comprehension, written expression and reading fluency. These are the various areas that PB could support and enrich in the IALTI.

Once children have successfully learned to read by decoding, the emphasis should shift to sight-reading of more common words and speed-reading in general in order to avoid a reduction in fluency due to over-decoding (Gang and Siegel, 2002). In essence, it seems that children's auditory processing problems lead to their sound-symbol association problems which lead to their phonological awareness issues, and ultimately resulted in their spelling and reading problems (Florida Department of Education, 2004). By being aware of the possible sub-disorders of dyslexia and the combinations these disorders may manifest in, educators would be better able to assess children and provide the appropriate intervention.

An approach that is able to deal with different problems and is not restricted to remediating a single sub-disorder may be the most effective in treating children with dyslexia. Therefore, the alternation of the two interventions were administered in this study. It seems evident that in helping children with specific learning difficulties, the key lies in the accurate observation and identification of the specific difficulty, followed by giving the appropriate assistance (Byers and Rose, 1993).

2.2.7 Challenges to the existence of dyslexia

Even though there are theorists supporting the existence of dyslexia, there are also some questioning its existence. These deliberations were viewed on the Channel 4 *Dispatches* programme, *The dyslexia myth* in the United Kingdom on December the 8th 2005 (a).

According to Nicholson (2005) Elliot stated that dyslexia does not exist, this does not however mean that children are "faking it" but rather that the learning difficulties children diagnosed with dyslexia are facing are so vast that a mere definition of dyslexia does not suffice.

Elliot (2005, p.729) stated that there is no purpose in splitting children into two groups where one is labelled as poor readers and the other as dyslexics, or as he stated "dyslexia sheep and poor readers…goats". Nicolson (2005) points out that one of the major flaws in the definition of dyslexia is the phonological deficit. In addition, he stated that phonological interventions are not benefiting children with dyslexia. This creates doubt as to whether or not dyslexia truly is an inherent phonological deficit.

The phonological based theory is well documented and researched; however, the debate relating to the actual existence of dyslexia does tend to raise speculation, especially if one considers the fact that there are some behaviours in children with dyslexia that are not explained by the phonological deficit disorder. To address this, Goswami, Hulme, Seidenberg, and Snowling, (2005) directed attention to the three level theoretical frameworks by Morton and Frith (1993, 2005) which separates the biological, behavioural and cognitive functioning of a child, whilst acknowledging the environmental factors present at each level. Children with dyslexia are faced with a wide range of difficulties with co-morbidities; it is thus difficult to gather everything under the ambit dyslexia (Snowling, et al, 2005).

Another argument raised by Elliot (2005) is that there are no specific teaching approaches that differ in teaching poor readers and children with dyslexia. Nicolson (2005) addresses this by stating that although poor readers and dyslexia benefit from similar interventions, it should not be confused by aetiology. Nicholson (2005, p.659) supports this with the following analogy "Aspirin relieves the symptoms of both headache and backache, but they are not the same afflictions". In conclusion, the debate as it stands seems to be concerned with definition, symptomology, diagnostics and treatments.

All of these are relevant areas that need to be cautiously investigated before a label is placed on a child. To suggest that dyslexia is a myth as a result of difficulties with definition, diagnostic, symptomatology and treatment seems problematic.

Nonetheless, it is hoped that in time with the growing body of research and literature available there will be an increasing understanding of dyslexia and interventions to support children with dyslexia.

2.3 An elaboration pertaining to the Retrieval Automaticity Vocabulary Elaboration Orthography (RAVE-O) and Dyslexia Institute Literacy Programme (DILP)

As mentioned in chapter one, both these programmes have been utilised within the South African context to support and improve children with dyslexia's literacy skills and development. In an effort to provide the reader with a better understanding of what is currently available within the South African context, these programmes have briefly been elaborated below.

2.3.1 Retrieval Automaticity Vocabulary Elaboration Orthography (RAVE-O)

RAVE-O is an acronym for Retrieval, Automaticity, Vocabulary, Engagement with Language and Orthography. It is seen as a cognitive approach to teaching. Rave-O was developed at the Centre for Reading and Language Research, Tufts University, by Maryanne Wolf and her colleagues (Wolf, Miller, Donnelley, Adams and Joffe, 2006). Rave-O includes every component of written and spoken language. These components include: phonology, morphology, syntax, semantics, pragmatics and orthography. Including these components stimulates various cognitive processes (Wolf, 2007).). The universal intention of RAVE-O is to stimulate neural pathways in the brain. Therefore, its aim is to collectively link information that is retrieved from visual, cognitive and linguistic regions and to access these regions to improve the reading process (Wolf, Barzillai, Gottwald, Miller, Spencer, and Norton 2009).

In short, the RAVE-O programme aims to:

- Increase children's reading fluency with comprehension.
- Expand children's vocabulary and grammar
- Improve children's memory and automaticity in letter and word recognition.

The above mentioned aims are achieved through fun filled activities involving active participation from the teacher, as well as, social interaction and engagement with the children. RAVE-O is designed to engage children to utilise language in meaningful ways. Furthermore, RAVE-O aims to develop children's phonological awareness and recognition of letter and word patterns. Lastly, it utilises repetition to train visual and auditory memory for rapid retrieval (Wolf, and Bowers, 1999).

A concern about the implementation of teaching this programme is that it assumes teachers have an in-depth understanding of the linguistic processes. It also assumes that all teachers are dynamic, motivating and engaging for the children. Seeing that these above mentioned characteristics and skills are fundamental for progress in the implementation of RAVE-O, omission of these qualities would presumably lead to less or no significant progress for the children involved.

2.3.2 Dyslexia Institute Literacy Programme (DILP)

The Dyslexia Institute Literacy Programme (DILP) is based on the work of Ortan (1937) and Gillingham and Stillman (1956) who devised a phonetically based programme for teaching dyslexic children. The DILP is a thorough, detailed guide to teaching reading and spelling. It is based on a structured programme; which is embodied in letter order and which builds up to a comprehensive exposure of English words. It covers in detail, strategies to teaching reading and spelling in a systemic and memorable way. Furthermore, it describes techniques for children to practise these mentioned skills to mastery. In addition, the DILP deals with decoding skills at word and sentence level and with spelling rules (Dyslexia Action, 2000).

Aims of the DILP include teaching teachers to assess the leaner's difficulties with written language, and to recognise and analyse the errors presented by individual children. Analysis of individual errors is encouraged, as this should motivate teachers to adjust their teaching accordingly. In addition, it aims to provide strategies for dealing with a child's literacy development needs ranging from the most severe difficulties in decoding words to problems with reading accuracy, comprehension and spelling at an advanced

level. Therefore, this approach is viewed as being essentially diagnostic and targeted to the needs of the individual (Dyslexia Action, 2000).

The principles of the DILP programme include (Dyslexia Action, 2000):

- Structure and Sequence: a literacy programme for a child with dyslexia should have structure. The sequences progress from high frequency simple concepts to lower frequency concepts of more complexity.
- Cumulative: each new piece of learning is added to previous learning and practised in a variety of ways.
- Multi-sensory: the programme includes; auditory, visual, oral and kinaesthetic modes of teaching.
- Phonic based: emphasises sound symbol association.
- Thorough and supporting memory: each stage of the programme should achieve mastery before moving on to the next stage.
- Metacognive: metacognition is encouraged through every stage of this programme.

A limitation pertaining to the DILP programme includes a preconceived notion that the teachers are enthusiastic and engaging to the individual child's needs. A lack of these characteristics could limit possible progress for the child. In addition, the programme can be very time consuming, therefore, possibly limiting the motivation for teachers to utilise it.

2.4 Integrated approach to literacy instruction (IATLI)

Unfortunately, the IATLI has not been well researched. Therefore its value in supporting children with barriers to learning has not been proven. As a result the majority of this section relies on course material compiled by Harcombe (2003) from the University of the Witwatersrand.

Harcombe (2003) stated that the IATLI is considered to be a cognitive approach, which is grounded in constructivism. Constructivism refers to the manner in which people create meaning of the world through individual constructs (Reisberg, 2001). Reinberg (2001) explains constructs to be the contextually relevant filters people utilise to create meaningful experiences. The IATLI is contextually inclusive and it is based on an "eco-systemic framework" (Harcombe, 2003, p.23). It accommodates children's preferred processing styles i.e. "bottom-up (successive processing) and top-down (simultaneous processing)" into the teaching and learning processes (Harcombe, 2003, p. 23).

A brief discussion of the two main literacy instruction methods is necessary at this stage as it will provide a better sense of understanding for the IATLI. These two methods are better known as the *top-down* and *bottom-up approach* (Harcombe, 2003). The top-down approach refers to models of reading and writing instruction that start with meaning or 'the whole picture'. In other words, such methods focus on improving the child's grasp of the meaning of a text by "improving concepts and language, providing much experience in reading and writing" (Harcombe, 2003, p.25). The top-down approach is a strategy used in various disciplines that begins at the highest conceptual level and gradually works its way down to the details. The bottom-up approach on the other hand, focuses on instructing the child first in the 'detail of the picture'. This is the understanding that individual sounds in words have a corresponding sound-symbol relationship. This approach focuses on "phonological training before anything else in literacy is taught" (Harcombe, 2003, p. 26).

The IATLI uses an integrated approach, which means that elements of both the bottom-up and top-down cognitive processing and literacy elements are taught simultaneously (Harcombe, 2003).

2.4.1 Various methodologies contributing to the IATLI

As previously mentioned, there are various methodologies including Phonics, The Whole Language approach and the Balanced approach which contributed to the IATLI. A brief discussion of each follows next:

2.4.2 Phonics

Vacca and Vacca (2000) describe the Phonics approach as the child's ability to identify and sound out individual letters that make up words. Researchers felt that in the initial stages of reading, learning the sounds and an awareness of phonic skills and practicing these skills within the text, were critical to reading (Vacca and Vacca, 2000). Researchers later found that although children were able to sound the words, they did not understand the meaning within the sentence; therefore, no real reading took place because no meaning was conveyed within the sentence (Cooper, and Hyland, 2000). In South Africa, Phonics is still a method of teaching reading in classrooms. Most South African classrooms accommodate various languages and the Phonics approach tends to make it easier to acquire the English language. The IATLI utilises Phonics as a critical part of the intervention as it stresses the importance of clustering sounds together as seen in, for example, "sound families" (Harcombe, 2003, p.13).

2.4.3 Whole Language

The psycholinguistic theory led to the development of Whole Language instruction. Whole language encompasses "the idea that children learn language holistically rather than in bits and pieces" (Cooper, and Hyland, 2000, p.6). The Whole Language curriculum is based on children's interests, strengths and needs, thus allowing it to become meaningful for children. Therefore, this approach relates well to PB as Whole Language Approaches (WLA) reflects constructivist theory, which promotes literacy through meaningful activities and texts as starting points for the lessons.

A more structured form of Whole Language Approach is Concentrated Language Encounters (CLE) (Walker and Huber, 1992). It provides a practical way of applying whole language principles to improve literacy skills if a child's first language differs from the language of instruction. Furthermore, Walker and Huber (1992) observed that a marked difference in children's language participation was noticed when CLE was introduced as children were more responsive and confident when responding to teachers' questions and initiating interaction. This is probably the result of the children being able to interpret what was said and done within the context of an activity. In sum, the study illustrated that teaching children with dyslexia in the area of literacy should aim at more holistic approaches such as the Whole Language Approach, as it emphasises word recognition over phonic approaches (generally considered a weakness for children with dyslexia). In addition, it relates real world knowledge to word and phrase meaning for reading, thus allowing learning to become more meaningful and acquiring literacy skills faster.

2.4.4 Balanced Approach

Despite the above mentioned benefits, Whole Language methodologies saw a decline in reading achievements. This contributed to a call for a balance in the teaching of literacy (Tompkins, 2004). This approach emphasises both Whole Language methods and skills development, which centers on word-level recognition, comprehension, understanding the main idea and making inferences (Tompkins, 2004). Balanced Approaches emphasise teacher directed instructional approaches as well as student centered instruction (Vacca et al, 2000), illustrated in the alternation of PB and the IATLI in this study.

2.4.5 The combination of the Phonics, the Whole Language and the Balanced Approach

The Phonics Approach, the Whole Language approach or the Balanced Approach should not be considered as entirely constructivist. These models do not consider the eco-systemic background of children, they do not take into account cognitive theories of development, nor do they consider ways of accommodating children's cognitive development and their processing styles (Harcombe, 2003).

Harcombe (2001) believed that incorporating all approaches simultaneously is useful because it allows teachers, parents and children to understand all the influences and factors that may affect a child's ability to become literate. In addition, it allows for teachers to design individual reading interventions for children (multi-level teaching) (Harcombe, 2001). Multi-level teaching refers to an approach that teachers adopt when they plan their lesson to meet the needs of the individual needs within the class (Leaf, 2005). It further implies that this approach can be used to design literacy intervention for pupils that could be at risk of dyslexia. As before mentioned the benefits of this approach to assist children with dyslexia has not been researched and is based on assumption.

2.4.6 Potential benefits of the IATLI

The IATLI provides pupils with cognitive tools to construct knowledge. Jonassen (1999) defined cognitive tools as both mental and computational devices that "supports, guide and extends" the thinking processes of individuals. These processes are internal to the child, like for example metacognition. Leaf (2005, p108) explains that 90% of learning takes place in the metacognitve level of the brain, this is where the brain is "thinking about thinking". Cognitive development promotes thinking skills, and encourages autonomous learning to optimise academic and intellectual growth (Skuy, 1996 and Harcombe, 2003). When children problem solve they make use of their metacognitive strategies to monitor themselves. This awareness can be most useful in reading (as they monitor their comprehension) and writing (Brooks, cited in Bower 1983).

The IATLI aims at providing children that present with learning difficulties, including dyslexia, with metacognitive skills to create meaning out of what they are reading, which results in better comprehension skills and more meaningfully written texts (Harcombe, 2003).

Many South African children, including children affected by dyslexia, have been affected by negative contextual factors, which have interfered largely with the acquisition of their literacy skills (Donald, 2001 and Harcombe, 2003).

Although research suggests that most children learn to read regardless of which method is used, such research seems to focus on leading first-world countries, where contextual factors are normally favourable to the acquisition of reading (Marion and Forlin, 2003).

In addition, such research does not always examine which strategies would be most useful for children with dyslexia (Moll, 2002). It is likely that no one particular method of literacy instruction will benefit these affected children. The IATLI, however, aims at creating literacy enriched circumstances for children, where they should develop greater levels of suitable stimulation and success (Paul, 1998). Educators are to create opportunities for success, and are expected to be flexible and to adapt the curriculum to suit the needs of the children (Department of National Education, 2003).

2.5 Philosophy for Children (P4C)

The P4C approach was developed by Professor Matthew Lipman and his associates at the IAPC (Institute for the Advancement of Philosophy for Children). P4C emphasises the significance of questioning skills, meaningful dialogue, and vigilant reasoning in the process of education. It aims to improve pupils' ability to think creatively, critically, caringly and collaboratively through well-guided discussions (Murris, 2010). Splitter and Sharp (in Haynes and Murris, 2011) have stated that it is preferable not to provide P4C with a definition as it could take on new aspects and dimensions within each unique environment. However it adopts a clear position with regards to the broader aims and purposes of education in a democratic society. The principle behind this approach is to extend and improve children's thinking.

It sets out to influence the entire life of the school and its pupils. It further seeks to broadly influence children's educational achievements and to make a positive contribution to schools as social communities (Haynes, 2007). Therefore, children are ethically and politically encouraged to use their freedom of speech and express their thoughts in a safe environment. It emphasises oral work, narrative voice, and inclusive democratic practice. This provides a powerful means by which children can listen to their peers, share experiences, and explore meaning.

They learn to express their views with confidence, knowing that their voices are heard and they can raise questions of interest and concerns. Consequently, they learn to take risks in their thinking and questioning (Haynes, 2007). Therefore, the children are enabled to experience freedom of expression. This overall freedom of expression is considered valuable in remedial therapy as it allows for children to be treated holistically.

Freedom of expression, seems to be omitted from the IATLI practise, including it to the IATLI should enrich it, as this could develop children's critical thinking because they are engaged in philosophical discussions. Hopefully, these philosophical discussions lead to application in, for example, written expression and comprehension.

2.6 Philosophy with Picture Books

2.6.1 Introduction to Philosophy with Picture Books

Philosophy with Picture Books is grounded in the before mentioned characteristics of P4C, including the development of critical thinking, democracy and freedom of speech. It could be argued that the use of a picture book lends itself to an eco-systemic framework. This is because an eco-systemic framework is explanatory of systemic influences on an individual's development. Each individual's systematic influences affect their development of critical thinking, democracy and freedom of speech. These systematic influences are considered and respected within the utilisation of picture books. Accordingly, it is this consideration and respect that leads to the development of the above mentioned skills.

In order to understand picture books as used in this study, a brief overview of the various aspects that pertain to them is necessary. Over the past few decades, it is in the realm of the picture book that children's literature brought upon one of the greatest areas of change and growth. Contemporary picture books are rich, challenging and sophisticated in terms of their themes as well as their artistic and literary styles, some of which would not have been associated in the past with children's books (Doonan, 1993).

2.6.2 Theories regarding the definition of picture books

According to Sipe (1998, p. 97) "the essence of the picture book is the way the text and the illustrations relate to each other; this relationship between the two kinds of text – the verbal and the visual texts – is complicated and subtle". It is this complex and subtle relationship that develops literacy skills for children, as it seems to motivate them to analyse sentences, pictures and statements. It urges children to stay to the point, by aiding them in "focusing on relevant factors, striving for consistency and constructing inferences and explanations" (Splitter, 1995, p. 9). These are all foundation skills for the development of literacy skills. The development of these skills develops comprehension ability, motivation for written expression and reading of relevant material for children. These elements could well develop specific literacy skills for the boys in this study. A picture book must be seen as a complete product because it is an 'iconotext' – "an inseparable entity of word and image, which cooperate to convey a message" (Nikolajeva and Scott, 2001, p. 185).

A picture book's total narrative and effect is created through the synthesis of text and pictures along with the layout, total design of the book and the turning of pages. Through technological advancements however, artistic innovations and the increasing importance of visual forms in modern cultures have resulted in pictures having a far greater narrative and communicative role in picture books. They are not simply part of "the physical appearance of the book" that could be judged beautiful, drab or lacking in appeal (Shaywitz, et al 1992, p. 3).

Apart from bringing out what is said in the verbal text, pictures convey additional meanings that could not have been derived from the verbal narrative alone (Cianciolo, 1997). They can contain information that might change or add to the meaning, tone and purpose of the text. Pictures may represent with additional means of communication and expression; this can also be defined as a visual expression (Cianciolo, 1997). Nodelman (1988, p. 53) stated that "the words of a text are not just symbols of spoken sounds but part of the visual pattern on the page…" Therefore, various different learning protocols for the visual and verbal modes of communication are available.

Visual competence (referring to basic nonverbal and visual communication skills) is largely untaught and is gained through experience and personal development whereas verbal communication is the primary focus of educational programmes (Baggette, 1998). In addition, the development of visual competence should assist the development of literacy skills in a child with dyslexia as it is neither invasive nor threatening (Baggette, 1998) It does not seem to emphasise their area of weakness, therefore motivating them to participate and interact in the process.

2.6.3 Picture books as a cultural mediator

Picture books can be regarded as a cultural mediator; as a medium that facilitates communication, understanding, and action between persons or groups who differ with respect to language and culture (Katan, 1999). Furthermore, 'visual culture' is also an important notion for understanding picture books, particularly those that involve both the verbal and visual modes of communication (as is the case with most picture books).

A correct interpretation and understanding of visual images here can enforce knowledge of cultural assumptions and learnt competencies respectively (Nodelman 1988). Agosto (1991) explains that there is a complex relationship between the pictures and the words, and both have to be interpreted in order to understand a picture book. Attaining these specific skills should improve literacy development because it facilitates higher order thinking which is important in both written expression and comprehensions (Vygotsky, 1962).

2.6.4 Limiting considerations of picture books

Despite the increasingly significant role of the visual element in picture books, various scholars have commented on the distinct lack of research pertaining to this area. In literary studies, pictures are treated as minor or appear to be completely neglected (MacCann and Richard, 1973). In graphic art criticism, the visual dimension of children's literature has been widely disregarded until recently (Kümmerling-Meibauer, 1999). Furthermore, the narrative function of pictures as opposed to the narrative features of words has not been dealt with in critical theory (Roxburgh, 1983).

It was in the 1980s that the picture book began to be considered an object of academic study and during this time various scholars started exploring the interaction between word and image in picture books, which, using terminology essentially constitutes their "semantic structure" (Roxburgh, 1983, p. 20). Nikolajeva and Scott (2001, p. 2) have pointed out that there are very few books that deal specifically with "the dynamics of the picture book, how the text and image, two different forms of communication, work together to create a form unlike any other." Yet "not everything that can be realised in language can also be realised by means of images, or vice versa" (Kress and van Leeuwen 1996, p. 17). These differences are frequently exploited so that the two media work together to the point where the goal of the picture book could not be achieved by either medium on its own.

2.6.5 Differences between written expression and picture books

One essential difference between the two modes of communication is that written language (with its grammar, syntax and vocabulary) is linear. This means that we may understand and decipher meaning by reading along the line. Visual language, on the other hand (with colour, shape, texture, size, contour, etc.) is simultaneous, because we see a picture and its contents altogether (Shaywtiz, et al, 1992). Tension is created because the verbal text urges the reader to read on, while the pictures urge us to stop and look (Sipe, 1998). Accordingly, for a child with dyslexia it seems possible that the simultaneous method would assist the development of literacy skills better, as the linear method would place too much pressure on an already challenging area for them.

More extensively than any other type of children's literature, the picture book also obscures the usual distinction between genres. Rather than limiting itself to exploring the intention of any one particular type of text (verbal or pictorial), it exploits genres (Lewis, 2001). Shaywitz, et al. (1992, p.14) stated that the picture book is therefore "a lively complex phenomenon". It appears lively because it reflects a wide array of styles, compositions and designs and it seems complex because it exhibits an enormous variation in the fashion in which the words and pictures combine and intertwine (Shaywitz, et al, 1992, p.14).

Lewis (2001) describes it as, "……the picture book, where word and image constitute separate plates sliding and scraping along against each other" (Lewis, 2001, p.35).

Sipe (1998) uses the term 'synergy' in order to capture the idea that both the pictures and the words would be incomplete without the other. In other words, the relationship between words and pictures is synergistic so that "the total effect depends not only on the union of the text and illustrations but also on the perceived interactions or transactions between these two parts" (Sipe, 1998, p. 98). Agosto (1999) and Lewis (2001) also use the term 'synergy' because it emphasises that a picture book's story is not merely the summation of the story told by the words and the story told by the pictures. For Nodelman (1988), the relationship between words and pictures in picture books is inherently one of 'irony'.

Irony creates a discrepancy between the said and the unsaid and between the information offered by the words and that offered by the pictures. Kümmerling-Meibauer (1999), offers a contrary view to that of Nodelman's namely, that all picture books are ironic in nature, by suggesting instead that the notion of irony should be used to describe a particular case of the picture-word relationship. Doonan (1996) provides the following general synopsis of this verbal-visual relationships:

> The relationships between words and pictures range from an obvious congruency through to that of a highly ironic one in which words and images may seem to be sending contradictory messages, and a challenge lies in resolving the differences to make a composite text with a satisfying conclusion; at its most extreme, the nature of the relationship is permanently unclear and a high degree of toleration of ambiguity is required of the reader. It seems to me that in the understanding of picture books, neither element – words or pictures – can be isolated, nor are they isolated… (Doonan 1996, p.231)

This means that an ideal understanding reflects awareness not only of the significance of the original text but also of the interaction between the visual and the verbal, with regards to what the pictures does in relation to the words (Kümmerling-Meibauer, 1999). Understanding picture books thus requires time and dedication to understand the illustrator's intent (Cotton, 2000). This is important for PB in that it utilises picture books in a different way as it provokes questions that cannot be answered by predefined methods or functions. Each participant in this process needs to think for him or herself

(Murris, 2009). These aspects create a spirit of co-operation, care, trust, safety and a sense of common purpose. It is this spirit that develops motivation to participate in literacy based activities as this caring, trusting nature creates a sense of common purpose (Haynes, 2006). In the instance of practising remedial therapy with children with dyslexia, the common purpose is to improve their literacy skills as extensively as possible. Moreover, PB could also create a self-correcting practice, which is determined by the need to critically discuss issues that seem intriguing, problematic, ambiguous, or incomplete. Discussing these issues should become rewarding to those involved, and which may culminate towards the development of their judgement (Splitter and Sharp, 1995). This self correcting practise is important in developing literacy skills as it appears to create a sense of determination and self-awareness when applied to literacy activities. This in turn could motivate a child to correct careless errors and apply a sense of pride in their approach to their academics.

Issues of generality, understanding concepts and acquiring skills are vital for the development of literacy (Lipman et all., 1977) as these elements should support the transference of literacy skills and assist with inferential reasoning in comprehensions. According to the PB practise these elements (generality, understanding concepts and acquiring skills) are best developed through social interactions. PB thus supports the argument that human thinking is at its richest when it is socially distributed (Van Den Brink, 2002). Vygotsky suggests that social interaction and philosophical dialogue enhance and develop the child's cognitive capacity (Benjamin and Eugenio, 1992). Therefore, the philosophical dialogue derived from the picture books should support children with dyslexia, as well as enrich the IATLI, as metacognition should occur.

2.6.6 Relevance of picture books to this explorative study

For the purpose of this study some core ideas of P4C will be incorporated, however adjusted to suit the study. These adjustments include that children will not form part of an enquiry (group of children discussing a philosophical topic), but rather attend individual one-to-one sessions. PB will be used as a tool within the P4C approach that encourages children to generate thinking and discussion.

Generating philosophical thinking and discussion should support the research participants as PB and P4C provide a framework to support exploration with confidence and courage through critical engagement with the text (Haynes and Murris 2011). Consequently, participation and understanding of the text is facilitated and children are provided with the opportunity to move beyond the book and generate their own questions, which makes the activity more meaningful. PB further offers a sense of freedom from the usual constraints of compulsory schooling (Haynes and Murris, 2011). In addition, children are provided with the opportunity to think critically for themselves through dialogue, questions, and the facilitation of a democratic process (Haynes and Murris, 2011).

Incorporating PB should add value and support children with dyslexia as it is an element of P4C which encourages development in the following areas:

- Strengthening of judgment. Sound judgments, are based on sound criteria. Even though past and future experiences influence judgments, experience is not enough to formulate judgments. The formulation of judgments is vital as it instinctively affects how we live our lives.

  It is, however, not only important to know when to formulate judgments, but also when to withhold judgments. Consequently children utilising P4C need to respond with empathy as the exclusion of this would result in judgments (Splitter and Sharp, 1995). This skill could enrich the IALTI as the formation of strong judgements could support creative writing and the research participants understanding of comprehensions.

- Independent thinking. Independent thinking counts as progress, since a person who thinks for themselves is considered free. It also allows for a reflection of personal experiences and develops personal autonomy (Splitter and Sharp, 1995). Personal autonomy could support the development of a child's self-esteem, which possibly aids one's academic performance.

Problem-solving, meta-cognition, and co-operative learning allows for critical and creative thinking, which includes a broad range of skills and depositions which are deemed necessary for co-operative and deliberate responses to problem solving (Splitter and Sharp, 1995). Critical and creative thinking, combined with problem solving skills, could possibly develop a child's literacy skills as follows. Critical and creative thinking aims at teaching children to evaluate situations and questions critically, which results in less careless errors, more success, with an added possible increased self-confidence. Essentially, the integration of critical, collaborative, creative, and caring thinking could indicate potential literacy progress in this research study, as these indicators of progress suggest that the incorporation of PB could develop the following: problem solving, independent thinking, formation of judgements, creative and collaborative thinking.

These elements could add value to children's therapeutic intervention as well as support them. In addition, it could enrich the IATLI as the incorporation of these skills should develop children's self-esteem which is an element that is vital for progress.

2.7 Comparisons of Piaget's and Vygotsky's influence on PB and the IATLI

2.7.1 Comparison of Piaget's influence on PB and the IATLI

Both Piaget and Vygotsky contributed to the IALTI and PB in different ways. It could be said that they have influenced the methodology these interventions originate from. Therefore, a brief comparison of their influence on the IATLI and PB seems necessary as it would enable a better understanding of the IATLI and PB's origin.

Shaffer (1999, p. 276) stated that for Piaget children are curious, active explorers who play an important role in their own development. In this sense, Piaget observed that children construct their own knowledge.

Even though PB agrees with the notion that children should take responsibility for constructing their own knowledge, it appears more supportive of the notion that children's knowledge is co-constructed through modelling of the facilitator and the active participation of the children within a community of enquiry (Roschelle, 1992). According to Piaget, individuals think and rethink, on their own accord by means of their own system of logic; this system is called "collective notions" (Brockmeier, 1996, p. 132).

Piaget's belief that children are responsible for constructing their own knowledge and his idea of collective notions seem to be important foundations for the IATLI as it supports individualised intervention as opposed to active engagement with others. PB on the other hand acknowledges and reinforces children's empowerment and agency because, it also stresses the importance of learning through active listening of each other's ideas and opinions, which creates the opportunity to learn and develop as a result of active group participation (Haynes, 2007).

2.7.2 Piaget's cognitive theory

Piaget's cognitive theory postulates broad sequences of intellectual development potentially providing insights into how children at different ages think and construct knowledge (Schaffer, 1999). Subsequently, Piaget's theory has given rise to various influences. One example of this is apparent, in the design of grade school science curricula in the US, where his theory has been used to decide "what children can be expected to learn at the various ages" (Metz, 1995, p 148). This knowledge has contributed to the IATLI, by creating a sense of age appropriate learning which was used as a reference in the planning and organising of the IATLI intervention for a child.

2.7.3 Criticism regarding Piaget's theories

Even though Piaget's theory is often viewed positively for its contributions to the understanding of child development, criticism has been brought against his theory. These criticisms include that he appeared to have underestimated the "developing minds of infants, toddlers, and pre-school children" (Shaffer, 1999, p. 270).

Piaget claimed that concrete-operators are incapable of reasoning abstractly, when training suggests otherwise. Furthermore, Piaget failed to distinguish "competence" from "performance" (Shaffer, 1999, p. 275). He assumed that if a child failed one of his problems, it was due to the lack of the underlying concepts or thought structures he was testing. However, recent studies show that more than the "lack of critical competence might undermine one's performance on cognitive tests" (Metz, 1995, p.176). Although Piaget maintained that cognitive development occurred in stages and even though many aspects of cognitive development are orderly and coherent within particular domains, there is little "evidence for strong consistencies in development across domains or for broad, holistic cognitive stages of the kind Piaget described" (Shaffer, 1999, p.278). Lastly, Piaget devoted too little attention to social and cultural influences (Shaffer, 1999). For him the basis of development was directly related to biological functions (Tryphon and Voneche, 1996). Today however, we have gained the knowledge that children develop many of their most basic competencies by collaborating with parents, teachers, older siblings and peers.

2.7.4 A summary of Piaget's contributions to the IALIT and PB

In sum, Piaget's ideas have contributed to the development of the IATLI; however this is not evident with PB. This could be because PB seemingly values attention to the social and cultural influences of children's development more than their cognitive development. These above mentioned social and cultural influences are taken into account when applying the practice of PB, and thus, this intervention type appears as a value-adding construct in this regard. Indeed, the belief that social interactions contribute significantly to cognitive growth, is a cornerstone of the social-cultural perspective on cognitive development offered by one of Piaget's contemporaries, Lev Vygotsky (1962).

2.7.5 Comparison of Vygotsky's influence on PB and the IATLI

2.7.6 Vygotsky's socio-cultural theory

Vygotsky's socio-cultural theory emphasises that cognitive development is a function of the social and cultural realm. It follows that each culture transmits beliefs, values, and preferred methods of thinking or problem solving to each successive generation in its milieu (Forman and Cazden, 1986). Culture teaches children what to think and how to act accordingly. Children acquire cultural beliefs, values, and problem solving strategies in the context of collaborative dialogue with more skilful partners (Forman and Cazden, 1986). Vygotsky observed that children internalise their tutor's instructions and learn tasks within their own zone of proximal development (Gultig, et al, 2001).

This refers to the "distance between the actual development level as determined by individual problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with other capable peers" (Gultig, et al, 2001, p.36). Thus for Vygotsky, learning occurs best when the more skillful social other properly scaffolds intervention. Much of what children acquire from the more skilful social other occurs through guided participation, a process that may be highly context-dependant (specifically in Western cultures) or may occur in the context of day-to-day activities (more common in traditional cultures) (Gultig, et al, 2001).

This theory acts as a primary guideline of the IATLI, because the IATLI utilises the zone of proximal development to engage the child in the literacy intervention. In PB the teacher mediates good questioning and collaborative thinking because these are vital elements of a child's progress in thinking about a text, which should develop their evaluation strategies and ultimately their comprehension skills. Therefore, PB not only supports the theory of the zone of proximal development, but also actively includes it in its practise. In sum, the IATLI and PB concur within the Vygotskian theory that children learn best through guided participation, as this creates an optimal learning environment where their challenges could potentially be met and supported through collaborative thinking.

2.7.7 Children's self talk/ego-centric speech

Unlike Piaget, who argued that children's self-talk or ego-centric speech plays little if any role in constructing new knowledge, Vygotsky claimed that a child's private speech becomes a cognitive self-guidance system that "regulates problem-solving activities and is eventually internalised to become overt, verbal thought" (Shaffer, 1999, p.277). Recent research favours Vygotsky's position that language plays a most important role in children's "intellectual development" (Shaffer, 1999, p. 278). This is in favour of the IATLI since it encourages children to engage in self-talk as a tool aimed at developing and regulating their problem solving abilities. In PB, thinking is regarded as internalised speech. So children's opportunities to talk or to dialogue helps to develop their inner dialogue.

CHAPTER 3

RESEARCH DESIGN

3.1 Introduction

This study is a qualitative exploratory investigation into alternating the IATLI and the PB intervention potentially to support learners with dyslexia. Even though some quantitative methods have also been adopted in this study, it does not feature as prominently as the qualitative methods. This study may pave the way for further investigation in supporting learners with dyslexia.

3.1.1 Research Design

The research design focused on two participants using a qualitative method and some quantitative measurements (pre- and post-testing) (McMillan and Schumacher, 2010). This method was chosen as some quantitative results would contribute to the validity of this explorative study, as these results are gained from standardised tests rather than from the researcher's perspective. It is, however, noted that concerns regarding internal validity will persist from utilising these assessments, as the assessments do not account for the learners' development of maturity, mood or anxiety during the assessments. Therefore, standardised assessments are used in conjunction with the qualitative measurements and not in isolation from the qualitative measurements of the study.

3.1.2 Participatory Research

Amongst other processes, methods drawn from participatory research were used in this explorative study. Participatory research is primarily differentiated from conventional research in the alignment of power within the research process (Cornwall and Jewkes, 1995), in that the participants share in the process. This explorative study specifically utilised collaborative participatory research, as the researcher, and the two boys worked together on the study, each contributing to the findings of this study. Therefore, this study is viewed as "narrow participatory" research and not a "wide participatory research" (Cornwall and Jewkes, 1995, p. 1668).

More specifically this explorative study could be viewed as a "narrow participation" as it consists of few people (two boys) (Cornwall and Jewkes, 1995, p. 1669). In addition, the participants in this research were only involved in the participation of data collection and did not address issues of setting, agenda and ownership of results, power or control. Therefore, their thoughts, expressions and interactions were analysed and the participation with them formed the foundation of this research, but they were not involved in the data analysis of this study as this was completed by myself (the researcher and remedial therapist). This dual role (of myself being the researcher and remedial therapist) affords the benefit of familiarity for the participants. Consequently, a sense of comfort was automatically established during sessions. In addition, this created accessibility as the participants' teachers were within reach to discuss the learner's progress. Moreover, the location was accessible as these sessions were already established as part of their school routine. Factors limiting this dual role include subjectivity to data analysis, as preconceived notions regarding the participants and the interventions might affect objectivity in data analysis.

3.1.3 Action Research

A cyclical process of action research to plan, implement, observe, and evaluate each activity has been implemented. The action research process was based on the work of Kurt Lewin in the 1940's (Banister et al, 1994). Each cycle in the action research process has four steps: plan, act, observe, and reflect. These steps were utilised in this explorative study. This cyclical process was used to gather information of the interactions of each session, as the researcher kept a developmental diary noting the experience gained from the session with the boys. Participation with the boys, their work and their developmental diaries were then analysed. Developmental diaries were the primary source of information analysed in this study.

3.2 Research Methodology

3.2.1 Procedure

The researcher was firstly granted permission to conduct the research by the school principal and relevant parents. Each boy's baseline of abilities was taken into consideration as an array of pre-testing has been administered with these boys. The testing and establishment of baseline abilities was conducted in March 2011 as part of their remedial therapy intervention. The function of this baseline was to provide an in-depth understanding of the two boys to support their remedial therapy intervention. An initial interview with the English teacher of each participant was conducted to establish the boy's literacy abilities, strengths and weaknesses as well as their transference of skills within the classroom. A follow up interview of each boy's progress has been conducted 3 months after the initial interview and analysis was performed. All participants (researcher, two boys and the English teachers) were encouraged to keep developmental diaries. Lastly, post-testing (after 3 months) provided specific information regarding the progress (in specific areas) made by these two boys.

3.2.2 Setting

The setting that was used for this explorative study is an independent school in Gauteng, South Africa. This is an established school (60 years) and currently caters for approximately 576 learners in the primary phase. The school uses various resources to accommodate learners with barriers to learning. This includes class room facilitators and independent educational programmes (for example, the curriculum adjusted to suit the needs of the learner experiencing difficulties within the classroom) run by the relevant teachers. Furthermore, speech, remedial and occupational therapists practise on the premises and form an interactive part of the teaching team.

3.2.3 Sample

The chosen sample for this study was influenced by a large study that was previously conducted. It examined the reading skills of 5,718 children born in Rochester between 1976 and 1982 who remained in the area after the age of 5. The researchers found that boys were two to three times more likely to suffer from dyslexia than girls (Adelman and Taylor, 1992). In addition, Fulton (2011) agreed with this and stated that dyslexia occurs more commonly in males than in females. These findings motivated the choice of boys for this explorative study. The sample used for this study was a convenience sample, seeing that participants were selected on their availability and willingness to respond (McMillan and Schumacher, 2010).

The sample size in this study consisted of two children diagnosed with dyslexia. They varied in age (11 years and 12 years of age) and grade (grade 5 and grade 6) at the onset of this study. They attend the same Independent School where they have been attending one-to-one remedial therapy with the researcher for the past two years. They present with educational barriers to learning, specifically relating to literacy skills. During the study (of three months) they continued attending their regular individual hour a week remedial therapy session with the researcher. Their sessions were however adapted to alternating the IATLI and PB intervention. The picture books were replaced with other picture books as necessary, this means that once they completed a picture book, another was chosen. The criteria for the picture books relied on the individual needs and characteristics of the learner. They chose from a selected range (3 books, with the same author), this range was discussed and decided upon with the assistance of the supervisor. Examples of some of the picture books utilised in this study are included in Appendix H.

In an effort to provide a practical understanding of the research process, it will be explained with the following research grid. In addition, to provide a practical understanding of the IATLI and PB, each process has been explained in a table format in Appendix I.

Research Grid explaining the research process

TIME	TEACHING ACTIVITY	RESEARCH ACTIVITY
July	Pre-tests using various standardised tools. Start intervention: alternating PB and the IATLI **Week 1:** IATLI **Week 2:** PB	Note results. Interview teachers regarding the participants' baseline abilities
August-school holidays		
September	Further implementation of the interventions: **Week 3:** IATLI **Week 4:** PB **Week 5:** IATLI **Week 6:** PB	Interviewed teachers twice regarding possible progress made. Participants, teachers and I wrote in a developmental diary. The teachers kept their diaries with them, and I kept the participants' diaries as well as my own.
October	Further implementation of the interventions: **Week 7:** IATLI **Week 8:** PB Post-testing	Final interview with teachers. Developmental diaries collected from teachers and final entries made by participants and myself. Compare results and analyse interviews and developmental journals

3.2.4 Data sources

A number of data sources were used to establish the extent to which alternating the IATLI and PB supported these two boys.

3.2.4.1 In Depth Interviews

Initial semi-structured, open-ended, in depth interviews were conducted with the English teachers in order to establish a base line of abilities (Appendix A). Follow up interviews with both the English teachers were also conducted in person, (Appendix B), twice during the study in order to gain insight and record the progress made by the child. Patton (2001) claims that the advantage of semi-structured interviews included the preparation ahead of time. As a consequence, the interviewer is prepared and appears competent during the interviews. Moreover, it allows informants the freedom to express their opinions in their own terms (Patton, 2001). A disadvantage of semi-structured questions in this study lay in my limited experience in interviewing skills. Therefore, my questions might have seemed prescriptive or leading. Nonetheless, questions were aimed at the focus of this study. Therefore, interviews included questions about the boys' literacy abilities, their areas of difficulty and strength, as well as their transference of skills from remedial therapy into the classroom. Teachers were encouraged to document any relevant behaviour, performance, or progress of the two boys. The interviews assisted me to ascertain whether or not progress had been transferred into the classroom. These interviews were recorded and therefore permission was granted from all parties concerned before recording took place (Appendix F and G).

3.2.4.2 Developmental Diaries

An observational diary of each boy's work and reactions to sessions was kept by myself-the researcher and remedial therapist. This included rich descriptions and examples of the boy's work for later analysis. It also included a record of activities performed by each boy (and their duration) in order to establish a profile of instruction. The boys participating in this study were also encouraged to keep their own developmental diary. This included their descriptions of and feelings about the literacy interventions (IATLI and PB). The English teachers kept their own developmental diaries, which they used to indicate possible progress or to note test results.

There are considerable benefits for researchers who choose to keep developmental diaries, some of which includes the role of the diary as an essential coherent documentation of ideas, information and activities, as well as its use as a stimulus for reflective thinking (Patton. 2001).

Furthermore, a developmental diary projects prior experience, observations, readings, ideas, it is thus a means of capturing the various essentials of the research (McMillan and Schumacher, 2010). Contrary to these attributes, a limitation of developmental diaries relevant to this study, was the lack of commitment of the teachers to use their developmental diaries. This affected the productivity of the study as less data was captured. Patton (2001) affirms that this is a disadvantage of developmental diaries as they often include a disintegration of sustainability, because the participants lose interest or commitment during the study.

3.2.4.3 Pre and Post testing

Pre-testing (March 2011) was administered with the boys as part of their remedial therapy intervention. The tests administered included the PASP, C-TOPP and PhAB as they provided insight into the specific areas needing intervention. These tests predominantly focus on assessing a child's phonological awareness. Even though these various batteries of assessment include similar sub-tests, the Comprehensive Test of Phonological Processing (CTOPP) was predominantly utilised for the research findings section as it is the most comprehensive of these three assessments. The PASP assesses a child's auditory processing ability. This refers to a child's ability to process information relying on their auditory skills; there are thus no visual aids included in this assessment. The PhAB provides an overall age equivalent score, indicative of a child's phonological processing ability. The same battery of assessments was administered three months after the implementation (October 2011) of the IATLI and PB to determine if standardised progress has been made (refer to Appendix J for results). Using three assessments also aided the triangulation of this study.

The concept of pre and post-testing affects the validity of the study as internal factors (mood, time of day, anxiety) as well external factors (how the test is presented to the boys) may vary on these days. It is therefore hoped that the standardisation of these tests account for these factors. In addition, a standard deviation of 15% is necessary in order for these standardised tests to change in result.

It is therefore assumed that regardless of these potential factors (internal and external) the results of the pre and post assessment would remain valid. In addition, these results were analysed in conjunction with the qualitative methods of this study.

3.3 Data Analysis

Coding was used in this research project. Coding is defined as identifying parts of data with symbols, descriptive words or category names (Saldana, 2009). Coding or categorising the data serves an important role in data analysis as it involves subdividing the data and assigning meaningful categories (Dey, 1993). The coding process is an all-encompassing element of research as the researcher is continuously assigning meaning to transcripts, interviews and interactions (Basit, 2003). In this explorative study, data (including interviews with the teachers and developmental diaries kept by the participants and the researcher) was analysed assigning meaningful segments of text to a specific category. This method continued throughout the data analysis. More specifically, a method of inductive coding and categorising was utilised. This means that codes and categories were assigned to the data by the researcher directly examining the data (Saldana, 2009). This supported the researcher in gaining a deeper understanding of the data, as well as redefining interpretations (Basit, 2003), because the researcher could draw on firsthand experience with the setting and participants (Taylor and Bogdan, 1998). Identifying specific codes and categories assisted in the identification of apparent themes. These themes were analysed in conjunction with the participants and researchers developmental diaries, as well as the interviews with the English teacher's. The combination of analysing various material was used to gain a more objective understanding of this study.

3.4 Validity and Reliability

This explorative study used various strategies to ensure validity. This includes the role of the researcher acting as a officer (Saldana, 2009). This metaphor was assigned to researchers as it symbolises the search for evidence about cause and effect relationships (McMillan and Schumacher, 2010).

This is specifically evident in this data analysis as the data was analysed through careful consideration of cause and effect relationships. Triangulation was also evident in this study as quantitative (pre- and post-testing) and qualitative methods were used. This ensured that the information and conclusion was cross checked through the use of multiple procedures and sources (McMillan and Schumacher, 2010). Peer reviews also assisted in the validity of this study as the research questions and findings were continuously discussed with peers (fellow Masters students) and colleagues (deputy head, remedial therapists and a psychometrist) (Saldana, 2009). During these discussions the identity of all the participants (setting, teachers and the two boys) were kept anonymous. Lastly, an external audit was completed, as an outside expert (supervisor) assessed the quality of the study (Saldana, 2009). These qualities were assigned to this study to improve its validity and reliability.

3.5 Ethics

Reporting in the study was undertaken in such a way that confidentiality was ensured. Letters rather than names were used to describe the boys and their progress, with only the researcher knowing the identity of each boy.

Confidentiality was also ensured, in the sense that all aspects of the analysis was interpreted in a setting away from the school, and that discussion of the trends from the data was only discussed with the researcher's supervisor, prior to individual discussion with the boys teacher once the study was completed. Lastly, the process of the research procedure was explained and consent was gained individually with the boys, their parents, teachers and school principal.

All concerned parties signed a consent form that explained and outlined the procedures (Appendix C, D, E, and F). This consent form was similar in nature, however changed in the use of language to ensure its understanding. The consent form utilised for the boys explained the procedure of the research process. It explained (Appendix C):

- The time frame of the research (3months)
- Alternating their therapeutic approach (the IALTI and PB)
- The communication and interviews with their relevant teachers

In addition, the teachers also signed a consent form agreeing to be tape recorded during their interviews (Appendix G). Similarly to other information obtained in this study, these signed consent forms were also treated as confidential and kept in a safe place away from the school premises.

In essence this study conformed with ethical procedures as it included (McMillan and Schumacher, 2010):

- Informed consent
- Voluntary participation
- Right to review
- Anonymity/confidentiality

CHAPTER 4

RESEARCH FINDINGS

4.1 Research Participants X and Y: Background Information

Background information for X and Y was obtained through their remedial therapy profile that was created at the initiation of their remedial therapy in January 2010. X is a boy and was 11 years and 8 days old at the onset of this study. Y is also a boy, who was 12 years and 2 months old at the onset of this study. Their main area of difficulty has been explained by their teacher as a lack of interest in reading and under developed skills relating to spelling, reading and writing. Both X and Y were referred for remedial therapy by their English teacher as they struggled with reading, comprehension, writing and spelling. They started attending individualised remedial therapy sessions in January 2010. They attended two separate half an hour sessions to improve their English, reading, writing, comprehension, and spelling skills.

Within the last two years the IATLI was used in remedial therapy with X and Y to improve their literacy skills. The strategies used for their remedial therapy sessions were individualised using information gained from the pre-educational assessment tool which formed part of their remedial therapy intervention. These pre- and post-testing results are included in Appendix H. These assessment batteries are specifically used for assessing children with difficulties acquiring literacy skills. More specifically these batteries were used with X and Y to determine if standardised progress has been obtained in relation to their 6 month progress report for remedial therapy. In addition, these standardised results add to the validity of this study, as it adds triangulation. As a result of the initial assessment their remedial therapy sessions placed emphasis on improving their academic performance, specifically relating to literacy tasks. Their sessions usually consisted of tracking exercises, to improve visual discrimination and tracking of words whilst reading. Sound families were used to improve phonological awareness and sentence writing.
This lead to story writing and editing exercises which also formed a regular part of their sessions.

Even though the IATLI lead to some improvement, their progress was not sufficient to successfully cope with the classroom demand. This seems evident when one considers their failing marks on their report cards as well as discussions held with their English teachers. In addition, the IATLI seemed to emphasise their areas of difficulty, as it is designed to improve areas such as reading and writing. As a result, PB was introduced, not only to possibly promote literacy skills for X and Y, but also to possibly enrich the IATLI. PB could enrich the IALTI as it seems to be less restrictive. This could be due to the children setting the pace of the session as well as choosing the picture book and the questions to explore. This seemingly provides a sense of empowerment for the participants.

4.2 Did alternating PB with the IATLI add value to participants X and Y?

Including Y in the research project was potentially problematic as he was frequently absent, mostly due to sports injuries. When he was at school however, he seemed motivated to participate in remedial therapy. Insofar as PB adding value to participants X and Y's remedial therapy intervention certain themes were identified. The themes have been identified as follows:

4.2.1 Theme of personal development

For the purpose of this study personal development refers to emotional and social development. More specifically, this refers to the boys individual development, self awareness and self improvement. Even though a theme of personal development seemed evident for both participants X and Y, it appeared more apparent for Y. It could be the result of the emotional difficulty Y was experiencing at school, resulting in a need to develop personally. Alternating PB and the IALTI seemingly provided him with an environment to develop personally. He seemed to choose appropriate picture books to express his feelings (an example of one of the picture books is included in Appendix G). This approach seemed to allow him to problem solve and analyse issues such as bullying and teasing, which he was experiencing at school.

These adverse experiences seemed to affect Y's scholastic performance and were expressed by his teacher: "Look that can obviously affect how he is doing in the classroom. His marks have gone down by a percent…"

Nonetheless, the inclusion of P4C tools, for example active listening and providing a safe space where one could problem solve, assisted his personal development. This seemed apparent as there were no judgements projected on the feelings he was experiencing, thus offering him support. An example of this includes his formulation of a question in the PB session "size matters in the animal kingdom but not in real life…" for discussion. This was relevant to his situation as he is much taller and bigger than the grade sevens who teased him, yet he did not retaliate, as his teacher commented: "He can get very emotional when other boys tease him, he won't stand up for himself …" Through guided critical thinking, he came to the conclusion that physical size does not denote the effect one may have on another. This illustrates that Y could bring his own life experiences into the PB sessions. Consequently, the sessions were more personal and meaningful. Critical thinking has also been promoted for Y which facilitated his personal development as he participated in guided self-evaluations. This possibly illustrates that through critical thinking and self-evaluations PB seemingly enriched the IALTI. Another example includes Y's openness in discussing the issue of change. The issue of change was also raised by Y in a session after he experienced bullying at school. This was discussed in two sessions as it was relevant and pressing for him. At the end Y concluded: "I am going to make some changes in my life and be grateful for what I have…" The session concluded with Y also acknowledging that he would like to change the lives of homeless people. This philanthropic attitude indicates personal development, as he detached from himself and devoted attention to the less fortunate. The inclusion of PB seemed valuable for Y as it allowed him to discuss relevant concerns and grow from these discussions after his bullying incidence.

X on the other hand appeared to attain personal development through learning life lessons. These life lessons included being a good sibling, as he stated: "Today we chose a new book and we talked about not lashing out at my brother".

On another occasion he also stated: “Today we talked about what is a good brother and I am going to try and be nice to him and see what happens”. These life lessons should assist him with personal growth as well as with establishing a better sibling relationship.

4.2.2 Theme of improved self esteem and reduced anxiety and frustration

A theme of improved self esteem and reduced frustration and anxiety appeared evident for both X and Y. This was noticed with X as he seemed much more confident to express his feelings, even if this related to his feelings of inadequacy: “I feel like I wish I was clever”. PB seemingly provided him with a comfortable environment to identify his emotional challenges, for example feeling “slow” in the classroom as X also commented that: “I can’t keep up, I feel slower than everyone else….” In this instance PB seemed to enrich the IALTI as X felt heard during this PB session, and afterwards commented: “Thank you, I feel better now”. Indicating that he possibly experienced less frustration and anxiety. Furthermore, his body language also changed from slouching to sitting up straight and maintaining good eye contact, possibly indicating that he felt more self-assured and less frustrated. This positive response was noted in a few sessions, as supported by my dairy entries: “I realised that the boys are much more confident in their approach to tasks. They are less reluctant to engage in written expression and reading activities. It seems that their self confidence has improved. Self confidence seems key to development.” PB added value to the IATLI in this instance as it allowed X to explore his feelings of inadequacy through the use of a picture book. If one considers X’s comments mentioned above it seems as if PB created conditions for X’s voice to be heard. It seems as if PB added value to X’s sessions as it incorporated active listening and practising mutual respect.

Y’s teacher noticed frustration from him when he was presented with activities requiring him to write. The teacher stated: “He gets really anxious and he panics like I said in comprehensions…” This frustration seems evident in the classroom as he seemingly started to neglect his school work; examples include his teacher’s comment: “Hasn’t done homework or had homework book signed”, “English poetry not fully complete” and “0/20 spelling, didn’t learn”.

His teacher did however attribute this to the bullying Y was experiencing, as he commented: “There is obviously an issue at home with homework not being done, the bullying...” Y’s avoidance of written tasks also occurred during his remedial therapy sessions, as he always tried to avoid written activities, by changing the topic or suggesting other activities.

It seemed evident that Y was aware of his areas of difficulty, for example, written expression, and this created anxiety and frustration for him, as he stated: “I want to be better at school so I don’t have to practise all the time, and I could have time for myself”. In an effort to address Y’s anxiety and frustration, his remedial therapy sessions has placed less emphasis on written expression and more emphasis on him verbalising his stories and sentences. This relates to PB as there is less emphasis on Y writing as I wrote for him. During this process grammar, spelling and planning strategies were taught in an incidental manner. Y responded positively to this, possibly indicating an improved self esteem as he commented: “I had fun”.

In addition to emotional difficulties, Y’s numerous sports injuries resulted in his missing numerous days at school. As a result, he missed out on new concepts being explained in class, as well as falling behind in all of his subjects. This possibly created further anxiety for him as he was expected to catch up the work. The therapy room supported him through this process as it seemingly provided a comfortable non-invasive, non-threatening environment for him to express himself. This is supported in his developmental diary, which indicated that he felt heard and was granted the opportunity to express the difficulties he was experiencing. These attributes possibly assisted the development of his self esteem.

4.2.3 Theme of positive attitude to engagement

Alternating PB also appeared to be valuable for X and Y as it seemingly motivated them to participate in activities.

For X, this could possibly be a result of his feeling empowered from the onset of the PB practice, as he could not only choose which picture book he wanted to work with, but also which questions he would like to discuss after reading the picture book (an example of one the picture books he selected can be seen in Appendix G). It seemed as if there was less pressure on him to do activities that he knew he struggled with. In addition, his attendance at his PB sessions was regular (in contrast, he would sometimes not arrive for his IATLI sessions).

The approach within X's therapy changed, to utilise more of the PB approach as it created more opportunity to engage in creativity as well as working with his current, relevant emotional concerns. There might be various reasons for his preference towards PB. This could include the non-threatening, non-invasive nature of PB, as it created an environment that allowed him to comfortably express his own thoughts and feelings. It did not place emphasis on him to perform well scholastically (with literacy activities, specifically writing). His attitude appeared enthusiastic and eager during the PB process, as he commented: "I wish it wasn't finished, I wish it wasn't over". Consequently, a theme of positive attitude to engagement was identified. X seemed to agree with this as he commented after a PB session: "It was lots of fun not writing and just looking at pictures." "I had so much fun not writing." "Today was super just to let my mind go loose." Not only did X express his preference to PB, it also seemed as if he took pride in the evaluation of these sessions. This is noticeable in his detailed evaluations as he added in pictures and stickers to his written evaluation; whereas his comments relating to the IATLI seemed insipid, for example: "Today we did letter tracking and we had to make up words and I had to remember a sentence and write it down." **"**I like the other thing more." Even though X responded favourably to the unstructured nature of PB, there seemed to be a potential concern in his expectations of remedial therapy always following a less structured routine.

Realistically, remedial therapy would include targeting areas of difficulty in a structured manner seeing that the aim is to improve literacy skills.

Y's theme of positive engagement emerged from some of his comments in his developmental diary. Examples of these included: "I like that we spoke more and wrote less." It seems that Y found the expressive aspect of his sessions valuable as this did not emphasise his area of difficulty. Expressing himself is a strength for Y as is identified by his teacher: "Y does not seem to struggle with oral presentation, but with comprehensions and spelling". His behaviour in remedial therapy also reflected this, as he was able to always express what he thought and how he felt about issues that were of concern for him. In addition, he was able to verbalise a creative story, however, he battled to write it as a result of his poor spelling and grammar.

Therefore, Y seemingly responded positively to the expressive aspect of his therapy, as is supported with his comment: "PB is fun it helps me think". He did not express preference for either intervention (PB or the IATLI). Subsequently, he commented after an IATLI session: "I enjoyed it because it was fun making my own magazine and finding out who came first in the race" and "I liked playing snap…" Supporting this is a comment in my developmental diary: "Y engaged well in both processes, he noticed things in picture books that I didn't-perhaps shows his enthusiasm. He also enjoyed elements of the IALTI, snap and tracking". It appears that Y responded with a positive attitude toward alternating PB and the IALTI. This was noticed in his comments as well as his response to written expression as he independently started to attempt these challenging tasks.

4.2.4 Theme of areas of literacy improvement

Improving X and Y's literacy skills was the aim of their remedial therapy sessions. It has been observed in remedial therapy sessions that they experienced difficulty with reading, writing and spelling. This seems to create frustration for them, causing them to avoid these tasks as it seems to be too challenging. X's English teacher is aware that he battles significantly with written expression, reading, and spelling and commented on this as follows:

“His spelling is really bad. His reading is also really bad, suppose that’s why he can’t spell. He’s got everything in his head but his sentence structure and stuff is terrible. So if he writes something down and reads it, he can’t because it doesn’t make any sense.” X is aware that he is struggling academically.

He often felt disappointed when he received feedback on his performance in class. The teacher commented on this: “I do feel that often when he gets his mark back, he is sad and frustrated and you can see it, especially because I think he knows he just can’t do it.” Despite these identified areas of difficulty, X’s teacher noted in his developmental diary that X performed better in his English cycle test; he attributed this however to the fact that “there was not a lot to write in the test which “helped X to cope”. He also noted that X scored 11/20 for his spelling test which is “much better than his previous marks”. These were the only two entries made in the developmental diary given to the teacher, both indicating that there was some improvement.

In addition, his teacher stated: “Look there has been improvement but it’s a process and I think we just need to keep going....” The re-assessment administered as part of his remedial therapy sessions indicated that X made subtle yet well grounded improvement specifically relating to his foundation skills, as these areas now seem to be consolidated. This is supported with the improvement in some of his class tests and on standardised assessments (which can be seen in appendix H). The abovementioned comments possibly indicate that PB enriched the IATLI by including elements of empowerment, self development, active listening, and formation of judgement. This made a difference in X’s response towards literacy activities and is supported in my diary entry: “Was lovely to see him so excited”. This willingness to participate could seemingly lead to him potentially acquiring literacy skills.

Y’s teacher also identified that he struggles with all aspects of literacy development as he commented: “He is quite a bit below but I mean overall …” Even though Y claimed not to have preference to which approach was utilised, the inclusion of PB seemed to motivate him to improve his literacy ability.

This was noticed as he seemed to do what appeared necessary to achieve this (for example, trying to arrange some make-up therapy sessions and asking for therapy homework). This is possibly due to PB creating an environment where he can express himself and work though challenging situations focusing less on written expression, seeing that it is really difficult for him. It is felt that alternating PB with the IATLI motivated Y to problem solve and to think analytically. This seems to be supported with his teacher's comment: "His comprehension has gone up." In addition, his pre- and post-testing results (administered as part of his remedial therapy, included in Appendix H) also indicated progress. Therefore, overall Y has made some literacy improvement as suggested with the slight improvement in his English term mark, his improved participation in challenging tasks and his pre- and post-testing results.

4.3 A discussion of pre and post test results (included in Appendix J)

The CTOPP assesses phonological awareness, phonological memory, and rapid naming. Mather and Wendling (2012) identified that a deficit in one or more of these kinds of phonological processing abilities is viewed as the most common cause of learning difficulties in general and of reading disabilities in particular.

Mather and Wendling (2012) claim that the Phonological Awareness Composite Score measures the test-taker's awareness of and access to the phonological structure of oral language, both of which are important tools for beginning readers to understand relations between written and spoken language. A deficit in phonological awareness is viewed as the hallmark of reading disability or dyslexia. The Phonological Awareness Composite Score comprises the standard score of the subtests of Elision and Blending Words. Elision measures the ability to remove phonological segments from spoken words to form other words and Blending Words measures the ability to synthesise sounds to form words (Mather and Wendling 2012).

In addition Mather and Wendling (2012) stated that the Phonological Memory Composite Score measures the test taker's ability to code information phonologically for temporary storage in working or short-term memory.

A deficit in phonological memory is likely to impair decoding of new words and both listening and reading comprehension for complex sentences. The Phonological Memory Composite Score comprises the standard score of the two subtests, Memory for Digits and Nonword Repetition. The Memory for Digits subtest measures the ability to repeat numbers accurately while the Nonword Repetition subtest measures the ability to repeat nonwords accurately (Mather and Wendling 2012).

Lastly, Mather and Wendling (2012) explained that the Rapid Naming Composite Score measures the efficient retrieval of phonological information from long-term or permanent memory, and executing a sequence of operations quickly and repeatedly. Efficient retrieval of phonological information and execution of sequences of operations are required when readers attempt to decode unfamiliar words. The Rapid Naming Composite Score comprises the standard scores of the Rapid Colour Naming and Rapid Object Naming subtests.

The Rapid Colour Naming subtest measures the ability to name colours rapidly and the Rapid Object Naming Subtest measures the ability to name objects rapidly (Mather and Wendling 2012).

The PASP assesses a child's auditory processing ability. This refers to a child's ability to process information relying on their auditory skills; there are thus not visual aids included in this assessment. The PhAB provides an overall score, indicative of a child's phonological possessing ability. The same battery of assessments have been used to re-test the boys to support quantitatively whether or not progress have been made. These results were used as they firstly support that these boys' have dyslexia. Secondly, it was compared to the post-testing results, indicating standardised progress.

Lastly, using three assessments aids triangulation. It should however be noted that these assessments do not take into account variables that could affect or skew the assessment results. These possibly include elements such as, performance anxiety, tiredness, mood and the time of the day the test is administered. Therefore these results are analysed in conjunction with the qualitative methods of this study.

The interpretation of these above mentioned assessments indicated that difficulties were identified in all of these mentioned areas during their pre-testing phase. A sub-test that proved to be significantly challenging for the boys was the "Rapid Automised Naming sub-test". A difficulty with Rapid Automised Naming is used to refer to children who have "difficulty with word finding" (Hulme and Roodenrys 1995, p.75). Children with this type of language delay cannot quickly and automatically name objects and are slow at recalling the correct words. Slowness in naming and word finding is an accurate predictor of later reading and learning disabilities. Since reading is "not a single skill, but a linked series of sub-skills, which leads to information processing competencies" the ability to rapidly name objects is therefore important (Hulme and Roodenrys 1995, p.76). This experienced difficulty is probably due to memory retrieval problems (Lerner, et. al, 2003). Beck and Juel, (1995) support this notion as they claim that it is generally accepted amongst reading scientists that the primary manifestation of developmental reading disability (RD) is the inaccurate and dysfluent decoding of single words out of context because children with reading problems cannot rapidly and accurately link sounds to symbols in an alphabetical orthography.

Hulme and Roodenrys, (1995) claimed that reading involves the correct and rapid identification of visual stimuli with letters and words. The processing of visual stimuli depends not only on the integrity of the peripheral and central visual system but also on the attention system. In studies done, findings tend to reflect a general attention deficit to visual stimuli relating to the formation of letters in dyslexia.

This could possibly be related to problems with recruitment of the necessary cognitive resources for the performance of complex reaction timed tasks and for fluent reading. Therefore, the relationship between the two is not yet fully understood (Heiervany and Hugdahl, 2003).

To summarise the post test results indicated that the biggest area of improvement for X has specifically been phonetically. More specifically the sub tests indicated that his repetition of non-words, rapid digit naming, phoneme reversals and segmentation of words have shown the most improvement.

This should assist his spelling and reading of specifically regular spelt words as he should have the skill to analyse, decode and memorise these words more appropriately. This improvement has been noticed in his remedial therapy sessions as he has attempted these challenging tasks more willingly. In addition, his spelling tests and term mark has improved, despite his teacher's omission of it. Overall, the post tests results indicated that Y also made progress with his phonological awareness. This specifically included the ability to blend sounds together, segment non-words, rapid digit naming and memory of digits. These foundation skills should improve his spelling and written expression, as his ability to break difficult words up in order to spell them correctly should improve. In addition, his sequential memory has improved indicating that he should remember grammar rules and how to spell difficult words. These improvements in Y's foundation skills have been noticed in remedial therapy and might take time for him to internalise before generalising it into the classroom.

The definitions in this section illustrate that dyslexia is not the result of poor motivation, sensory impairment, lack of intellectual ability, inadequate instructional or environmental opportunities or any other limiting conditions, but may co-occur within these. Dyslexia results in a discrepancy between academic achievement and ability.

4.4 Areas where alternating PB and the IATLI seemed less valuable

Even though PB seemed to add value to X and Y's remedial therapy it did not lead to significant improvement regarding their literacy skills. The second interview with X's teacher indicated that not much improvement was seen in the three month research period, as the teacher stated: "I haven't seen much improvement since we last spoke. I would say he is pretty much the same. His spelling and reading is still really bad". Despite X's seemingly improved attitude and some improved test marks and results on a standardised assessment, he has not managed to transfer these skills into the classroom, nor into other subjects. His teacher supports this as he stated: "I'm just worried about next years' exams and things, I just don't think he's going to get through the exams, especially with History and Geography where he needs to read and write…"

Therefore it seems that even though PB has potentially added value to the IATLI it has not been significant for X. This is supported with his performance in class and across subjects. This could be the result of the short duration of this study, X's refusal to participate in the IALTI or perhaps the combination of the two interventions not addressing his areas of difficulty sufficiently.

Similarly to X, results from the interviews with Y's English teacher suggested that alternating PB and the IATLI has also not lead to significant literacy improvement for Y. This can be concluded from various comments and term results reflected on his report card. It seems as if Y did not transfer his positive attitude into the classroom. This appears evident as he frequently presented incomplete homework or failed to study for tests, which often resulted in him failing. When he was asked why he did not study for his tests, he stated that he "just did not want to".

This might be the result of his challenging emotional third term of 2011 (the issue of bullying, possible feelings of frustration and anxiety felt in the classroom when he finds activities challenging as well as his sports injuries). In addition, Y's teacher commented on his end of year results: "His marks have gone down by a percent." Therefore, suggesting that alternating PB and the IATLI did not lead to significant improvement for Y. Even though Y has shown some literacy improvement it has not transcended into the classroom. Perhaps these literacy skills have not transferred into the classroom as these literacy skills could need further consolidation.

Or perhaps the classroom did not offer Y a comfortable, non-threatening environment where he felt secure enough to participate in literacy based activities.

4.5 X and Y: Summary of Results

Results from the interviews, pre- and post-testing and developmental diaries kept, indicated themes illustrating that alternating PB and the IATLI was valuable for X and Y in certain areas, but the improvement made has not been significant. A summary of the themes identified for X and Y included:

- Personal development

- Improved self esteem and reduced anxiety and frustration
- Positive attitude to engagement
- Areas of literacy improvement
- Lack of significant improvement
- Difficulty with translating skills to other subjects

CHAPTER 5

CONCLUSION AND DISCUSSION

This research project has explored the potential value of alternating Philosophy with Picture Books (PB) with the Integrated Approach to Literacy Instruction (IATLI) to support two boys with dyslexia. In addition, it investigated the boys' response to alternating the IATLI and PB. Lastly, it aimed to establish whether PB possibly enriched the IATLI. In an effort to concisely describe this explorative study, each chapter is summarised hereunder.

5.1 Introduction

In order to help children with dyslexia overcome their reading and spelling difficulties, early identification, assessment and remediation appears to be important in this regard (Bright Solutions for Dyslexia, 2003; Lerner, et. al, 2003; Florida Department of Education, 2004). Early identification and support would assist children with dyslexia to avoid unfair labelling (Quirk and Schwanenflugel, 2004). It is the belief of Harcombe (2001) that suitable educational opportunities should be obtainable for the purpose of increased literacy development in each individual. Currently, not all individuals in need of literacy intervention seem to be receiving it. Therefore, there is a need to look for more appropriate forms of intervention to support children that are seemingly not benefiting from their current intervention. Interventions that have been identified to assist dyslexics include, RAVE-O and the DILP intervention. Both these approaches seemed to have received adequate research pertaining to their value in facilitating the development of children with dyslexia's literacy skills. Alternating PB with the IATLI to explore its value for children with dyslexia has not been researched. Consequently, for the purpose of this study PB and the IATLI will be alternated to investigate its potential value for children with dyslexia in remedial therapy.

Seeing that this study's rationale indicates that reading difficulties seem more prevalent in boys than in girls (Denton, 2003), the research problem identified a need to investigate an approach to support boys with dyslexia. In addition, Kriegler and Skuy's, (1996) research, indicates that these children often experience multiple difficulties (social and emotional). Consequently, there appears a need to investigate appropriate strategies to assist these affected children. The literacy intervention that has been utilised for the boys for the past two years (IATLI) has not been deemed successful as supported with their difficulty with managing classroom expectations. Therefore, the objective of this study was to establish and to explore whether or not alternating the IATLI with PB would be valuable for them. In order to achieve this objective within a three month period, the following research questions were included as sub questions: How did the boys respond to the combination of the IATLI and PB? As well as: Does PB enrich the IALTI?

5.2 Literature Review

The fundamental conceptual components of this research study, included the IATLI, PB and dyslexia. Firstly, The Integrated Approach to Literacy Instruction (IATLI) is defined as a literacy intervention that is derived from a combination of various approaches. These approaches include the Balance Approach, the Phonics Approach and the Whole Language Approach. The IALTI combined these approaches, resulting in a contextually inclusive approach that is grounded on an ecosystemic framework. Accordingly, it attempts to be holistically inclusive. Moreover, it accommodates children's different processing styles, as it includes top-down (simultaneous processing-seeing the collective whole) and bottom-up strategies (successive processing-seeing parts of the whole) (Harcombe, 2003, p.23). In essence, Harcombe (2001) identified that the IATLI uses both cognitive processing to understand literacy processes as well as appropriate teaching methods to link reading and writing strategies together (Harcombe, 2003, p.23).

Secondly, Philosophy with Children (P4C) is defined as an approach which supports a pedagogy that includes communicative virtues, such as tolerance and respect across differences (Murris, 2009).

On the whole, P4C aims to improve pupils' ability to think creatively, critically, caringly and collaboratively through well-guided discussions (Murris, 2010). Moreover, P4C encourages intellectual resourcefulness and flexibility which permits children and teachers alike to manage the disconnectedness and disintegration of existing curricula. It additionally motivates children to use insights from one subject to inform their understanding of other subjects. P4C believes that children, can only develop these skills if the educational process itself challenges their imagination and provides opportunities to increase their intellectual processes (Lipman, Sharp and Reed 1995).

Thirdly, PB is explained as an approach that is derived from P4C and therefore incorporates the mentioned values of P4C. In addition, PB seems to advocate visual language and simultaneous processing as readers see the pictures and contents simultaneously. More specifically, PB provides children with the opportunity to think critically for themselves through dialogue, questions and the facilitation of a democratic process (Haynes and Murris, 2011). It seems important to bear in mind that this philosophical thinking should originate out of innovation and not social conformity or social acceptance. Therefore, the facilitator should be conscious not to project his or her own ideas, feelings, or perspectives onto the community, or in this study, the participants (Haynes, 2006).

Lastly, in this explorative study dyslexia has been defined as a poorly developed ability to relate to both written and oral language (Hulme and Roodenrys, 1995). It illustrates that a formal evaluation should be completed in order to diagnose dyslexia. Furthermore, it suggests that if dyslexia remains untreated, it could result in academic failure. "Rapid Automised Naming" is identified in this section as an area that relates to a person's ability to rapidly and correctly identify objects, numbers, or letters (Hulme and Roodenrys 1995). Failure to do this is often a good indicator (amongst other things) of dyslexia. This section also mentions the various sub-disorders that could coincide with dyslexia.

More specifically, it noted that these sub-disorders usually affect auditory processing, visual processing and phonological awareness. The definitions in this section demonstrate that dyslexia is not the product of poor motivation, sensory impairment, lack of intellectual ability, inadequate instructional or environmental opportunities or any other limiting conditions, but may co-occur within these. Despite the evidence based definitions supporting the existence of dyslexia; this section ends off with Nicholson (2005) and Elliot's (2005) belief that dyslexia does not exist.

5.3 Research Design

The research design consisted of qualitative, and to some extent quantitative measurements (pre and post-testing). In addition, it includes various research design techniques. These include: Participatory Research and Action research. Participatory research is differentiated from other research processes as the participants actively take part in the research process. Action research consists of a cyclical process which includes the plan, implementation of the plan, observation thereof and evaluation of the process. Lastly, this section describes the validity and reliability of this explorative study. The validity and reliability has been ensured by methods of triangulation, peer reviews and supervision.

The research methodology section included discussing the setting, sample and data sources. Data sources included, in-depth interviews, developmental diaries and pre and post-testing. The data analysis used inductive coding and categorisation. Essentially this illustrates that codes and categories were assigned to the data by the researcher directly examining the data. Ethics have been addressed by keeping the identity of the participants confidential.

5.4 Research Findings

The question pertaining to the value of alternating PB and the IALIT is addressed. This is accomplished through a discussion of the specific themes relevant to this study. These themes include:

- Personal development
- Improved self esteem
- Positive attitude to engagement
- Areas of literacy improvement
- Lack of significant improvement
- Difficulty with translating skills to other subjects

5.5 Has alternating PB and the IATLI been valuable for the two boys identified in this study?

Results of the study indicated that the combination of these strategies were valuable for the two boys in this study. More specifically, this pertains to some improvement in their literacy development, as well as their personal development and their response to engagement in therapy. The areas within literacy development that have shown some improvement included their phonological awareness, written expression, spelling and decoding strategies. This is supported quantitatively with their improved classroom results (tests) as well as the post assessment that occurred during remedial therapy. Both results indicated English literacy improvement. The process was facilitated by including the values of P4C, which include; active listening, acknowledging different perspectives, and view points and understanding the importance of being reasonable. These mentioned values not only developed their self esteem but also seemed to assist in the development of their evaluation skills. These elements form a vital part in improving written expression as it helps detect careless errors.

5.5.1 How did the boys respond to alternating the IATLI and PB?

The boys have reflected a positive response to the combination of these approaches. Qualitatively, they have displayed an enthusiastic, positive response towards participating in the PB approach.

This was noticed in the comments made in their developmental diaries as well as my comments in my developmental diary, noting their enthusiasm to PB tasks, for example: "Today I had so much fun…" This enthusiasm was not always evident when using the IATLI.

This is supported with the statements found in their developmental diaries, for example: "I liked the other thing more…" Alternating these approaches seemingly created an environment where the boys could explore and develop their thoughts. It was noticed as they seemed to engage in critical thinking, this includes responses such as: "If you don't like something, don't do it". Another comment of one of the boys included: "Don't let outside things ruin your inside". These seemingly introspective statements reflect their personal development as it illustrates the ability to view themselves and their actions and interactions in relation to others. Seeing the self as part of the collective whole will hopefully encourage them to focus on their internal challenges without having to measure their success against that of others. As a result, their enthusiasm seemed to develop when we utilised the IATLI.

5.5.2 Has PB enriched the IALTI?

It could be concluded that PB enriched the IATLI by creating a non-threatening environment reciprocating flexibility, selflessness, and empowerment which promoted personal development for X and Y. In addition, PB seemingly created an environment where there was less emphasis on their areas of difficulty. This possibly reduced the boys' feelings of anxiety and assisted in developing their self esteem. Consequently, there was less emphasis on X and Y's progress academically, and more emphasis on viewing them holistically. As a result, it seemed that their emotional, social and cognitive sphere has developed. Furthermore, their response to the sessions indicated that the spontaneity and unpredictability of PB was enriching for them.

Alternating PB and the IATLI indicated that flexibility and a holistic perspective of children seem important for progress to occur.

Moreover, alternating PB and the IATLI enriched their remedial therapy sessions as it indicated that time needs to be allocated to developing a child's opinion, questioning skills, challenging deep thinking, problem solving and the ability to create judgements. These skills should develop critical thinking.

Critical thinking seems valuable in developing literacy skills as it encourages reflection, editing and monitoring, skills that are important for comprehensions and creative writing.

5.5.3 Areas that have not shown improvement

Despite these above mentioned valuable areas of development, significant improvement has not occurred. This is supported with the boys experiencing difficulty transferring the skills taught in therapy into other subjects. In addition, no noticeable improvement has been acknowledged by their teachers, indicating that the improvement has not been significant.

5.6 Limitations of this study

A limitation to the use of participatory research in this design includes the short time frame of this study. This study was conducted and administrated within a time frame of three months. Therefore, it did not allow sufficient time to investigate an accurate potential of the value of alternating these two interventions (PB and the IATLI). In addition, the participants were not involved in the analysis of the data which could have resulted in some of the data not being adequately understood. Even though a method was put in place to overcome this limitation (peer reviews and supervision sessions), the best interpreter of the data would include the participants thereof. It was also felt that there was not sufficient 'buy in' from all the participants. More specifically this includes the teachers, as their developmental diaries reflected limited input, which affected the richness of the study.

Lastly, delays were created with one of the participants (Y) as he was often absent from school due to his sports injuries. This affected contact time with him and affected the results pertaining to his intervention.

Pertaining to this study, the limitations of action research included the loss of standardisation. Even though a quantitative method was included (pre- and post-assessments) the majority of the study relied on qualitative methods, such as action research.

This is limiting as the results do not appear scientific and are possibly subjective, as in this study the researcher was also the teacher. In an effort to overcome this limitation, the research was subjected to peer review and supervision sessions, where the results were analysed and reviewed by my supervisor. Similar to participatory research, the limited time over which this study was conducted is also a limitation with regards to action research. This is because it is felt that conducting this study over a longer time frame could have produced a better indication of the value of alternating PB and the IATLI.

Due to the small sample size and the selection criteria by which the children were selected for this research, the sample does not reflect the whole population being investigated, namely children with dyslexia. The sample bias occurs as both children attend the same school. This significantly restricts the inferences that can be drawn from this study, thus influencing the validity of the study. It has been suggested that for further research to be conducted on this topic the sample size should be expanded, including children from various social economic backgrounds.

The children's natural maturation could affect their literacy development. Unfortunately, there is no possible means by which a child's maturity could be measured. One should, however, consider that this research study was implemented within a short period of three months; therefore it is assumed that no significant maturation could have possibly occurred within this time frame.

This does not rule out that no maturation occurred as there is no scientific measurement to ascertain certainty in this regard, therefore for research purposes this remains a limitation to the validity of this study.

History refers to the environmental events other than the independent variable, which occurred over the period of investigation, which possibly influenced the results of the participants in the study (Gravetter and Forzano, 2003). In this research report, history referred to the possible educational interventions that occurred simultaneously (such as class interventions) during the period of IATLI and PB teaching strategies.

It also includes any changes in medication received by the children during this investigation or alternative therapies received by the children outside of the school environment. Even though these factors could have possibly influenced the validity of this study (and is therefore noted) the children in this study received these interventions (additional outside therapy) prior to the implementation of this three months period which in itself indicates that it could not have significantly influenced this research. In addition, after the implementation of this study it was confirmed with the parents that X and Y's medication was not changed during this study. Consequently, a change in medication is not considered a limitation to the validity of the study.

Whilst these limitations to the validity cannot be disregarded the pre- and post-interviews with the teachers indicate that no significant change in teaching pedagogy occurred, therefore accounting for this limitation to validity.

Another limitation of the research methodology included the fact that the researcher was also actively involved in the research process. This is a limitation as the researcher could interpret the data in a subjective nature which would skew the results of the study. In an effort to overcome this limitation the data has been reviewed by my colleagues (deputy head of the school and fellow therapist). In addition, the data as been presented and thoroughly discussed with my supervisor, in an effort to overcome issues pertaining to the validity of this study.

5.7 Ideas for further research

It is suggested that future research explore the potential use of visual teaching strategies, including picture books within the classroom for children with dyslexia, who are described as visual learners, on a more formal basis.

This may include increasing the sample size, conducting the research across various schools and classes and possibly matching individuals in the sample in order to have a control group.

5.8 Conclusion

As a remedial therapist, I have been concerned by the lack of progress that two boys with dyslexia have made. Their remedial therapy followed the IALTI, and a decision was made to introduce PB to their therapy to evaluate the extent to which alternating PB and the IALIT would add value to their remedial support, (this research project was designed and executed). On the basis of the boys' response, interviews with their teachers and developmental diaries kept by their teachers and myself (researcher and therapist) I am confident to conclude that alternating PB with the IATLI is valuable. It seems to contribute to personal development, self esteem, less anxiety and frustration and a positive attitude to engagement. When utilised as a short term intervention it can't be said to make significant improvement in literacy. Despite this, I would recommend that PB is pursued by therapists working with boys with dyslexia, as it seems to be a promising addition to the array of interventions to support these learners.

Reference List

Adelman, H.S. and Taylor, L. (1992). *Learning problems and learning disabilities* California: Brooks/Cole Publishing Company.

Agosto, D.E. (1991). One and inseparable: Interdependent storytelling in picture books. *Children's literature in education.* Vol. 30(4), pp. 267 - 280.

Austin Area Branch of the International Dyslexia Association (2004). *What is Dyslexia?*

Aylward, E.H., Richards, T.L., Berninger, V.W., Nagy, W.E., Filed, K.M. Grimme, A.C. Richards, A.L. Thomson, J.B. and. Cramer, S.C. (2003). Instructional treatment associated with changes in brain activation in children with dyslexia: *Neurology*. Vol. 61, pp. 212-219.

Baggette, S.K. (1998). *Jonathan goes to the grocery store*. Photos by William J. Moriarty. Sterling, VA: The Brookfield Reader.

Banister, P. (1994). *Qualitative Methods in Psychology.* A research Guide. University of Michigan: Open University Press.

Barton, S. (2003). *Classroom Accommodations for Dyslexic Students.* San Jose, CA: Bright Solutions for Dyslexia.

Basit, T.N. (2003). *Manual or electronic?* The role of coding in qualitative data analysis. Educational Research. Vol. 45, pp.143-154.

Beck, I.L. and Juel, C. (1995). The role of decoding in learning to read. *American educator*. Vol. 8, pp. 21-25, 39-42.

Benjamin, M. and Eugenio, E. (1992). *Studies in Philosophy for Children: Harry Stottlemeirer's Discovery*. Philadelphia: Temple University Press.

Bower, G.H. (1983). *The Psychology of Learning and Motivation: Advances in Research and Theory. Volume 18 of Psychology of Learning and Motivation*. Chapter 1. Non-analytical cognition: memory, perception and concept learning. Larry, L., Jacoby, R., Brooks, L. R. Massachusetts: Academic Press.

Brockmeier, J. (1996). Construction and Interpretation. Exploring a joint perspective on Piaget and Vygotsky, In A. Tryphon and J Vonèche (eds.). *Piaget-Vygotsky: The social genesis of thought.* pp. 125 – 143.

Burbules, N.C. (1995). Reasonable Doubt: Towards a Post-modern Defence of Reason as an Educational Aim. In W. Kholi (Ed.). *Critical Conversations in Philosophy of Education.* London: Routledge. pp. 124-138.

Byers, S. J. and Rose, R. (1993). *Redefining the whole curriculum for pupils with learning difficulties*. London: David Fulton.

Cianciolo, P. J. (1997). *Picture Books for Children*. Chicago: ALA Editions.

Cooper, H. and Hyland, R. (2000). *Children's Perceptions of Learning with Trainee Teachers Volume 1 of International Educational Studies*. London: Routledge.

Cornwall, A. and Jewkes, R. (1995). What is participatory research? *Journal of Social Science,* Vol. 41(12), pp. 1667-1676.

Cotton, P. (2000). *Picture Books Sans Frontières*. England: Trentham Books.

Critical Thinking Community Access 20th May 2010 http://wwwcriticalthinking.org

Department of Education. (2003). *Annual Report*: Pretoria Government Printers.

Denton, C.A., Hasbrouck, J.E. and Sekaquaptewa, S. (2003). The consulting teacher: A descriptive case study in responsive systems. *Journal of Education and Psychology Consultation,* Vol. 14 (1), pp.41.

Dey, I. (1993). *Qualitative Data Analysis*: A user friendly Guide for Social Services. UK: Routledge.

Donald, J. G. (2001). *Learning to think: disciplinary perspectives*. San Francisco: Jossey-Bass.

Doonan, J. (1993). *Looking at Pictures in Picture Books*. South Woodchester, UK: Thimble Press.

Dyslexia Institute Literacy Programme (DILP). (2000). Dyslexia Action: London Surrey.

Elliot, N. (2005). *On a Scale: A Social History of Writing Assessment in America Volume 3 of Studies in Composition and Rhetoric*. New York: Peter Lang.

Engelbrecht, P. and Green, L. (2001). *Promoting Learner Development: Preventing and working with barriers to learning.* Pretoria: Van Schaik.

Fisher, R. (1998). Community of Enquiry: Creating Contexts for Moral Education. In: *Teaching Thinking: Philosophical Enquiry in the Classroom.* London: Cassell.

Florida Department of Education. (2004). Maintenance and operations administrative guidelines for school districts and community colleges. *Florida: Office of Educational Facilities*.

Forman, E. A. and Cazden, C. B. (1986). Exploring Vygotskian perspectives in education: the cognitive value of peer interaction in *Culture communication and cognition*.

Fridjhon, P., Green, L., Lomofsky, L., Skuy, M., (1993). Effectiveness of instrumental enrichment for pre-service teachers in a disadvantaged South African community: Chapter 11: Educational needs related to intellectual and cognitive difference. *International journal of cognitive education and mediated learning*, Vol. 2, pp. 92 – 108.

Fulton, D. (2011). *Supporting children with Dyslexia*. London: Routledge.

Gang, M. and Siegel, L. S. (2002). Sound-symbol learning in children with dyslexia. *Journal of Learning Disabilities.* Vol. 35, pp. 137 – 157.

Gardner, S. T. (1995). Inquiry is no mere conversation (or discussion or dialogue): facilitation is hard work! In: *Creative and Critical Thinking*, Vol. 3 (2) pp. 41 – 50.

Gearhart, B. R. (1985). *Learning disabilities: educational strategies.* St Louis: Times Mirror/Mosby College Publishing.

Gillingham, A. and Stillman, B.U. (1956). *Remedial Training for Children with Specific Difficulty in Reading, Spelling and Penmanship*. (5th edition, 1969). Cambridge, MA: Educators Publishing Service

Goswami, U., Hulme, C., Seidenberg, M. and Snowling, M. J. (2005). *The science of reading: A handbook*. Cambridge: Hogrefe Publishing.

Gravetter, F. J. and Forzano, L. B. (2003). *Research Methods-For the behavioural sciences*. USA: Vicki Knight.

Gultig, J. Irwin, J. Stanley, M. Cope, J. Plant., A. and Lekorotoana, *G* (2001). *Learner's and learning.* Section 3.3-3.5. South Africa: Pretoria.

Harcombe, E. (2001). Educational needs related to challenging behaviour. *In Engelbrecht, P. and Green, L. (2001). Promoting learner Development: Preventing and working with barriers.* Pretoria: Van Schaik. pp. 81.

Harcombe, E. (2003). *Inclusion: development and learning support*-topic *1, 2, and 3*: Johannesburg: University of the Witwatersrand.

Harwell, J. M. (2001). *The complete learning disabilities handbook* (2nd ed). San Francisco: Jossey-Bass.

Haynes, J. (2006). The cost of Thinking. *Teaching Thinking and Creativity*. Issue 17, pp. 32 – 37.

Haynes, J. (2007). *Children as Philosophers*. (2nd ed). London: Routledge.

Haynes, J. and Murris, K. (2011). *Picture books, Pedagogy and Philosophy*. New York; Routledge.

Heiervany, H, and Hugdahl, K. (2003). Impaired visual attention in children with dyslexia. *Journal of Learning Disabilities.* Vol. 36(1), pp. 68.

Hugdahl, K. Heiervang, E. Ersland, L. Lundervold, A. and Steinmetz, A. I. (2003). Significant relation between MR measures of planum temporale area and dichotic processing of syllables in dyslexic children. *Neuropsychologia.* Vol.14 (6), pp. 666 – 675.

Hulme and Roodenrys. (1995). *Dyslexia and Literacy: Theory and Practise.* USA: John Wiley and Sons, Ltd.

Johnson, D. J. and Myklebust, H. R. (1967). *Learning disabilities: Educational principles and practises*. New York: Grune and Stratton.

Jonassen, D.H (1999). *Computers as Mind tool for Schools*: Engaging Critical Thinking. USA: Prentice Hall PTR.

Katan, D. (1999). *Translating cultures: an introduction for translators, interpreters and mediators*. Michigan: St. Jerome.

Kress, G. and Van Leeuwen., T. (1996). *The grammar of visual design*. Chelsea: Heinemann Young Books and Mammoth.

Kriegler, S. M. and Skuy, M. (1996). Perspectives on Psychological Assessments in South African Schools. *In Engelbrecht, P., Kriegler, S.M. and Booysens (Eds.). Perspectives on Learning Difficulties-International Concerns and South African Realities.* Pretoria: J.L Van Schaik Publishers. pp.109-122.

Kummerling-Meibauer, B (1999). Metalinguistic awareness and the child's developing concept of irony: The relation between pictures and text in ironic picture books. *The lion and the unicorn,* Vol. 23, pp. 157 – 183.

Landsberg, E. (2005). In Kruger, D., Landsberg, E. and Norma, N. Learning Support. *Addressing barriers to learning*. Pretoria: Kruger, D., Landsberg, E. and Norma, N. pp 61-77.

Leaf, C. (2005). *Switch on your brain*. Cape Town: Tafelberg Publishers.

Lerner, J. (1993). *Learning Disabilities. Theories, diagnosis and teaching strategies*. (6th ed.). Boston: Houghton Mifflin Company.

Lerner, R. M., Jacobs, F. and Wertlieb, D. (2003). Handbook of Applied Developmental Science: Promoting Positive Child, Adolescent, and Family Development Through Research, Policies, and Interventions. *Applying developmental science for youth and families: historical and theoretical foundations*. Vol. 1, pp. 237 – 252. London: SAGE.

Lewis, D. (2001). *Reading Contemporary Picturebooks: Picturing Text*. London: Routledge.

Lipman, M., Sharp, A. M. and Oscanyan, F. S. (1977). *Philosophy in the Classroom (*2nd ed.). Philadelphia: Temple University. Press.

Lipman, M. and Sharp, A. M. (1978). Can Moral Education Be Divorced From Philosophical Education? In: M. Lipman and A.M. Sharp (Eds.). *Growing up with Philosophy.* Philadelphia: Temple University. Press.

Lipman, M., Sharp, A.M. and Reed, R.F. (1995). *Studies in Philosophy for Children: Pixie*. Madrid: Ediciones de la Torre.

Lomofsky, L., Roberts., and Mvambi, N. (1999). The Inclusive Classroom. *In Engelbrecht, P., Engelbrecht, L., Green, L. and Naicker, S. Inclusive education in action in South Africa.* Pretoria: J.L Van Schaik Publishers. pp. 56-73.

MacCann, D. and Richard, O. (1973). *The child's first book: A critical study of pictures and texts.* New York: Wilson.

Marion, M. and Forlin, C. (2003). Supporting students with learning difficulties in a secondary school. *Special education Perspective.* Vol. 12 (1), pp. 31-46.

Mather, N. and Wendling, B. J. (2012). *Essentials of Dyslexia Assessment and Intervention*. New Jersey: John Wiley and Sons, Inc.

Mather, N., Wendling, B. J. and Woodcock, R. W. (2001). *Essentials of WJ III[TM] Tests of Achievement Assessment. Essentials of Psychological Assessment Series*. New York: John Wiley and Sons, Inc.

McMillan, J. H. and Schumacher, S. (2010). *Research in Education- Evidence-based inquiry;* (7th ed). Boston: Pearson Press.

Metz, K. E. (1997). On the Complex Relation Between Cognitive Developmental Research and Children's Science. *Curricula Review of Educational Research Spring*. Vol. 67, pp. 151-163.

Moll, I. (2002). Clarifying constructivism in a context of curriculum change. *Journal of education.* Vol. 27, pp. 5 – 22.

Montgomery, D. (2007). *Spelling, Handwriting and Dyslexia*. London: Routledge.

Morton, J. and Frith, U. (1993). What lessons for dyslexia from Down's syndrome? Comments on Cossu, Rossini and Marshall. *Cognition.* Vol. 4, pp. 289 – 296.

Murris, K. (2010) Roedean School: Conference Thinking Adults: Thinking Children brochure: (Brochure). Roedean School, Gauteng.

Murris, K. (2009). Philosophy with Children, The Stingray and the Educative value of Disequilibrium; In: R. Cigman and A. Davis (Eds) *New Philosophies of Learning.* Oxford: Wiley/Blackwell. pp 123-131.

Muter, V. (2005). *Early Reading Development and Dyslexia.* New York: Wiley and Sons Inc.

Nikolajeva, M. and Scott, C. (2001). *How Picture Books Work.* New York: Garland Publishers.

Nodelman, P. (1988). *Words about Pictures: The Narrative Art of Children's Picture Books*. Georgia, USA: University of Georgia Press.

Ormod, J. E. (2006). *Educational Psychology: Developing Learners.* New Jersey: Pearson Education Inc.

Orton, S.T. (1937). Reading, Writing and Speech Problems in Children. New York: Norton.

Patton, M. Q. (2001). *Qualitative Research and Evaluation Methods.* London: Sage Publishers.

Paul, R. (1998). *Exploring the speech-language connection (Volume 8 of communication and language interventional series).* Baltimore: Paul H. Brooks Pub. Co.

Piaget, J. (1977). *Epistemology and Psychology of Function.* Dordrecht: D. Reidel.

Quirk, M. and Schwanenflugel, P. (2004). Do supplemental reading programs address the motivational issues of struggling readers? An analysis of five popular reading programs. *Reading Research and Instruction.* Vol. 43 (3), pp.1 - 19.

Rack, J. P., Snowling, M. J. and Olson, R. K. (1992). The non-word reading deficit in developmental dyslexia: A review. *Reading research quarterly. International Reading Association.* Vol. 26, pp. 28 – 33.

Reid Lyon, G. and Moats, L.C. (1997). Critical conceptual and methodological considerations in reading intervention research: *Journal of learning disabilities* Vol. 30(6), pp. 578-588.

Reisberg, D. (2001). Cognition. Exploring the science of the mind. Second Edition. USA: Norton and Company, Inc.

Roschelle, J. (1992). Learning by collaborating: Convergent conceptual change. *The Journal of the Learning Sciences*. Vol. 2(3), pp. 235– 276.

Roxburgh, S. (1983). A Picture Equals How Many Words? : Narrative Theory and Picture Books for Children. *The Lion and the Unicorn*. Vol. 7/8, pp. 20 – 33.

Saldana, J. (2009). *The Coding Manual for Qualitative Researchers*. New York: SAGE Publishers.

Shaffer. D. R. (1999). *Developmental Psychology, childhood and adolescent.* California: Brooks and Cole Publishing Company.

Shaywitz, S. E., Escobar, M. D., Shaywitz, B. A., Fletcher, J. M. and Makuch, R. (1992). Evidence That Dyslexia May Represent the Lower Tail of a Normal Distribution of Reading Ability. *New England Journal of Medicine*. Vol. 326, pp. 145-150.

Sipe, L. R. (1998). How Picture Books Work: A Semiotically Framed Theory of Text-Picture Relationships. *Children's Literature in Education*. Vol. 2(2), pp. 97 – 108.

Skuy, M. (1996). *Mediated Learning in and Out of the Classroom*. Arlington Heights: IRI/Skylight Training and Publishing, Inc.

Splitter, L. J. and Sharp, A.M. (1995). *Teaching for better Thinking: The Classroom community of Enquiry.* Melbourne: Acer.

SIRRI Sensory Integration and Learning Centre. (2004). *How the sensory learning program works.*

Taylor, S.T and Bogdan, R. (1998). *Introduction to Qualitative Research Methods.* A Guidebook and Resource. New York: Wiley and Sons Inc.

Tompkins, M.A. (2004). *Using homework in psychotherapy: Strategies, guidelines and forms*. New York: Guilford Press.

Torgesen, J. K. (1998). *Individual differences in response to reading intervention*. Paper presented at the Pacific Coast Research Conference, LaJolla, CA, February.

Tryphon, V. and Voneche, J. (1996*). Piaget – Vygotsky: The social genesis of thought*. East Sussex :Psychological Press.

Vacca, J. A. L., Vacca, R.T and Gove, M.K. (2000). Reading and learning to read. London: Longman.

Van den Brink-Budgen, R. (2000). *Critical thinking for students*. (3rd ed.). England: Oxford.

Vellutino, F.R, Fletcher, J.M., Snowling, M.J., Scanlon, D.M., (2004). Specific reading disability (dyslexia): what have we learned in the past four decades. In: *Journal of Child Psychology and Psychiatry*. Vol. 45(1), pp. 2 – 40.

Vygotsky, L. S. (1962). *Thought and Language*, Cambridge, Massachusetts. New York:John Wiley and Sons, Inc.

Walker, T. and Huber, R. (1992). Is it time to hug a whole language teacher. *Science Educator.* Vol. 1 (1), pp.19-20.

Warner, J. M. (1980). *Learning disabilities activities for remediation (2nd ed).* Illinois: The Interstate Printers and Publishers.

Wolf, M., Barzillai, M., Gottwald, S., Miller, L., Spencer, K., and Norton. E., (2009) The RAVE-O intervention: Connecting neuroscience to the classroom. *International Mind, Brain, and Educational Society.* Vol. 3 (2), pp. 21-25.

Wolf, M. and Boers, P.G. (1999). The double deficit hypothesis for the developmental dyslexia's. *Journal of Educational Psychology,* 91, pp. 414-438.

Wolf, M, Miller, M, Donnelley, K, Adams A, Joffe, T, (2006). *Retrieval Automaticity, Vocabulary Elaboration Orthography (RAVE-O).* Tufts University: Boston Massachusetts**.**

Wolf, M. (2007). *Proust and the Squid: The story and Science of the Reading Brain.* New York: Harper.

APPENDICES

Appendix (A) Initial interview with the teacher

(Child's name) parents have given permission for (Child's name) to participate in a study that examines how the IATLI facilitates literacy skills with two boys at-risk of dyslexia. It further examines which elements of Philosophy with Children enrich the IATLI. The implementation of this study will in no way interrupt or impact the work that is currently being done in your classroom. The following questions aim to enable me to gain insight into the work that (Child's name) is currently doing in your classroom and if his literacy skills are improving.

What work is (Child's name) currently doing within the classroom?

Please describe (Child's name) current level of scholastic abilities.

What are (Child's name) areas of strength?

What are (Child's name) areas of difficulty?

Is there any other information about (Child's name) that you would like to share with me?

Thank you for taking the time to meet with me and answer the questions about (Child's name) current work in the classroom. I would like to meet again after 3 months in order to follow up on (Child's name) progress in the areas of responding to remedial therapy. This will be done at your convenience either face to face or telephonically.

Appendix (B) Follow up interview with the teacher

Thank you for meeting with me again. I have a few questions that will enable me to gain insight into the work done and progress made by (Child's name) since our last meeting.

What work is (Child's name) currently doing within the classroom?

Have you noticed any change in (Child's name) level of abilities?

Has there been any change in (Child's name)?

Has there been any progress or change in (Child's name) spelling?

Has there been any progress or change in (Child's name) writing?

Has there been any progress or change in (Child's name) reading and comprehension?

What are (Child's name) areas of strength?

What are (Child's name) areas of difficulty?

Is there any other information about (Child's name) that you would like to share with me?

Thank you for taking the time to meet with me again and answer the questions about (Child's name) current work in the classroom.

Appendix (C) The boys' consent form

RESEARCH PARTICIPANT'S INFORMATION

Dear

My name is Helen Harper. I am studying for a Master's Degree in Education and I need to complete a research project (is a bit like having to do homework). The aim of my study is to understand how something called with a big name 'the integrated approach to literacy instruction' (IATLI- that is what we have been doing in therapy) helps improve your reading, writing and spelling. I also would like to use something called Philosophy with Children to help with the IATLI ☺.

You are invited to participate in this study ☺ ☺ ☺. Should you want to be part of this study your work at school and with me will be looked at for three months to find out what we have been doing, what we are busy doing and will be doing. This also means that I will look at information about you, like school reports (if any), tests (if any) and any other information that could add to this study. Interviews will be held with your English teacher ☺. This will help me understand if you benefit from this program (IATLI combined with P4CP)☺.

All information collected from our work together will be confidential. This means that only you, me, your mom, dad and your English teacher will know about this study ☺ ☺ ☺.

All the interviews will also be recorded using a tape recorder. I will also do follow up interviews with your English teacher.

You don't have to take part in this. You can also decide to stop at any time. It is very important that you feel happy and comfortable taking part in it at all times. If you choose to stop, you and I will carry on with remedial therapy as we did before ☺ ☺ ☺. It is only IF YOU WANT TO ☺ and it will not influence at all how we will work together afterwards.

If you would like to contact me with any questions you may have, please feel free to call me on 084 342 5595 ☺ ☺ ☺.

Thank you for your time ☺ .

Helen Harper

PARTICIPANT'S CONSENT FORM

Title:
Date:

I, _____

(tick the box you think is right!)

[☺] or [☹] Understand that my teacher Helen Harper would like to find out whether a program called IATLI and P4CP helps me with my reading and writing.

[☺] or [☹] She will also talk to my English teacher

[☺] or [☹] She will also look at my reports, tests etc.

[☺] or [☹] She will also make tape-recordings

[☺] or [☹] I know that she will not mention my name to anyone else but my Mom and Dad and my English teacher.

[☺] or [☹] I can stop whenever I want and it won't make a difference for how we will work together afterwards.

Appendix (D) The parents' consent form

PARENT INFORMATION FORM

Dear Mr. and Mrs.

My name is Helen Harper. I am studying for a Master's Degree in Education and in partial fulfilment of my degree a research project is required. The aim of my study is to evaluate and understand how the integrated approach to literacy instruction (IATLI) facilitates literacy skills with two boys at-risk of dyslexia. It also aims to ascertain which elements of an approach called Philosophy with Children Picturebooks (P4CP) enrich the IATLI for the benefit of these two boys who have been attending remedial therapy with me for the past two years.

Your child is invited to participate directly in this study. Should you give consent for your child to participate in this study his work at school and in remedial therapy will be analysed for a period of approximately three months in order to establish what strategies have been implemented, are being implemented and will be implemented in future to accommodate his learning and the effectiveness of these strategies. Furthermore, I will have access to data regarding your child. This data includes, previous school records (if any), previous assessments (if any) and any other information that could contribute to this study. This data will be analysed and interviews will be held with the two relevant English teachers. This will assist in establishing whether or not these learners' literacy skills are improving with the implementation of the IATLI and P4CP.

Any data collected, as well as pre and post test results gained from remedial therapy (administered as part of excising remedial therapy) will remain confidential with only myself knowing the identity of the child.

All the interviews will also be recorded using a tape recording device. Follow up interviews will be conducted with the two relevant English teachers.

Participation in this research is entirely voluntary. Therefore you or your child may withdraw at any time. Please do not feel obligated to allow your child to take part in this

study. It is entirely voluntarily- if you feel uncomfortable in any way, I will understand and will choose another participant.

If you would like to contact me with any queries you may have, please feel free to call me on 084 342 5595.
Thank you for your time.

Helen Harper

PARENTS CONSENT FORM

I, _____ consent to my child's participation

in the research study investigating how the IATLI facilitates literacy skills with two boys at-risk of dyslexia. It further investigates which elements of Philosophy with Children enrich the IATLI. This research is to be conducted by Helen Harper. I understand that confidentiality is of utter most importance and that the school and my child has the choice to withdraw from the study at any given time.

Date:

Signed _____

Appendix (E) The principal's consent form

SCHOOL INFORMATION FORM

Dear

My name is Helen Harper. I am studying for a Master's Degree in Education and a research project forms a partial fulfilment of my degree. The aim of my study is to evaluate and understand how the integrated approach to literacy instruction (IATLI) facilitates literacy skills with two boys at-risk of dyslexia. It also aims to ascertain which elements of an approach called Philosophy with Children enrich the IATLI for the benefit of these two boys who have been attending remedial therapy with me for the past two years.

Two children from your school are invited to participate directly in this study. Should you give consent for your school to participate in this study their work at school and in remedial therapy will be analysed for a period of approximately three months in order to establish what strategies have been implemented, are being implemented and will be implemented in future to accommodate their literacy development and the effectiveness of these strategies. Furthermore, I will have access to data regarding these children. This data includes, previous school records (if any), previous assessments (if any) and any other information that could contribute to this study. This data will be analysed and interviews will be held with the two relevant English teachers. This will assist in establishing whether or not these learners' literacy skills are improving with the implementation of the IATLI and P4CP.

Any data collected, as well as pre and post test results gained from the school will remain confidential with only myself knowing the identity of the child.

All the interviews will also be recorded using a tape recording device. Follow up interviews will be conducted with the two relevant English teachers.

Participation in this research is entirely voluntary. Therefore the research participants may withdraw at any time.

If you would like to contact me with any queries you may have, please feel free to call me on 084 342 5595.
Thank you for your time.

Helen Harper

SCHOOL CONSENT FORM

I, _____ consent to_____ participating in the research study investigating how the IATLI facilitates literacy skills with two boys at-risk of dyslexia. The study further investigates which elements of Philosophy with Children enrich the IATLI. This research is to be conducted by Helen Harper. I understand that two interviews will be conducted with teachers and that confidentiality is of utter most importance. Furthermore, I understand that I have the choice to withdraw my school from the study at any given time.

Date:

Signed _____

Mr.

Appendix (F) The teacher's consent form

TEACHER INFORMATION FORM

Dear Mr.

My name is Helen Harper. I am studying for a Master's Degree in Education and in partial fulfilment of my degree a research project is required. The aim of my study is to evaluate and understand how the integrated approach to literacy instruction (IATLI) facilitates literacy skills with two boys at-risk of dyslexia. It also aims to ascertain which elements of an approach called Philosophy with Children Picturebooks (P4CP) enrich the IATLI for the benefit of these two boys who have been attending remedial therapy with me for the past two years.

One child from your English class is invited to participate directly in this study. This study will evaluate his work at school and in remedial therapy for a period of approximately three months in order to establish what strategies have been implemented, are being implemented and will be implemented in future to accommodate his literacy development and the effectiveness of these strategies. Furthermore, I will have access to data regarding this child. This data includes, previous school records (if any), previous assessments (if any) and any other information that could contribute to this study. This data will be analysed and two interviews will be held with you. This will assist in establishing whether or not this learner's literacy skills are improving with the implementation of the IATLI and P4CP.

Any data collected, as well as pre and post test results gained from remedial therapy (administered as part of his excising remedial therapy) will remain confidential with only myself knowing the identity of the child.

All the interviews will also be recorded using a tape recording device. Follow up interviews will also be conducted.

Participation in this research is entirely voluntary. Therefore you may withdraw at any time.

If you would like to contact me with any queries you may have, please feel free to call me on 084 342 5595.
Thank you for your time.

Helen Harper

TEACHER CONSENT FORM

I, _____ consent to participate in the research study investigating how the IATLI facilitates literacy skills with two boys at-risk of dyslexia. The study further investigates which elements of Philosophy with Children enrich the IATLI. This research is to be conducted by Helen Harper. I understand that two interviews will be conducted with me and that confidentiality is of utter most importance. Furthermore, I understand that I have the choice to withdraw from the study at any given time.

Date:

Signed _____

Mr.

Appendix (G) Consent form for recording interviews

CONSENT FORM (RECORDING)

I _____consent to my interview with Helen Harper for her study on understanding how the IATLI facilitates literacy skills with two boys at-risk of dyslexia as well as ascertaining which elements of Philosophy with Children enrich the IATLI to be recorded.

. I understand that:

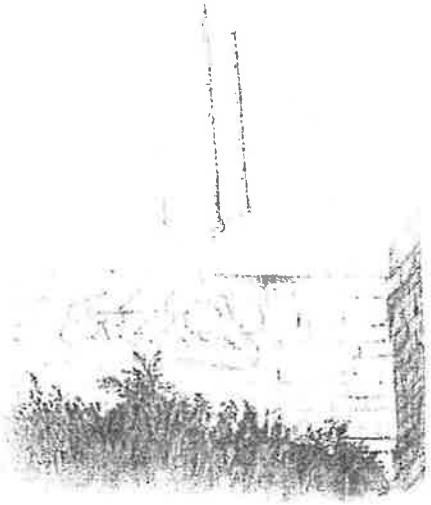
- The tapes and transcripts will not be seen or heard by any person in this organisation at any time, and will only be processed by the researcher.
- All tape recordings will be destroyed after the research is complete.
- No identification information will be used in the transcripts or the research report.

Date:

Signed _____

Appendix (H) Examples of picture books

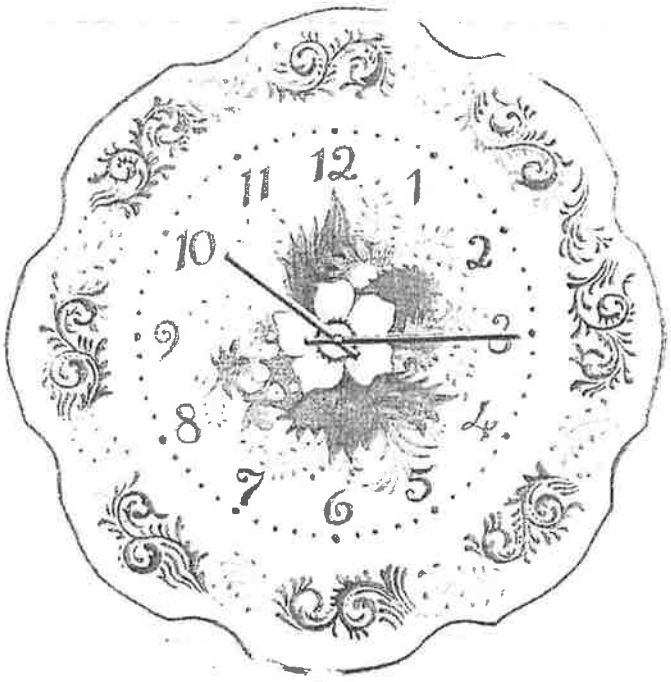
The Tunnel



Anthony Browne

WALKER BOOKS
AND SUBSIDIARIES
LONDON • BOSTON • SYDNEY • AUCKLAND

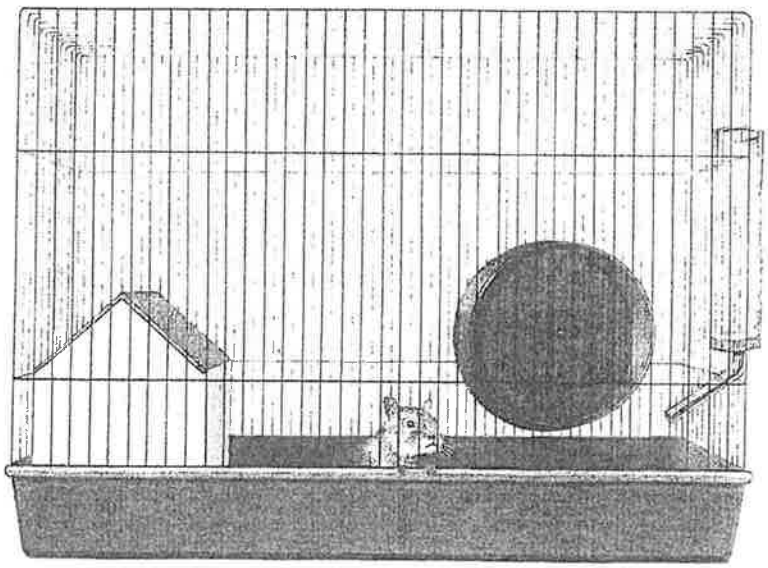
CHANGES



ANTHONY BROWNE

Farrar, Straus and Giroux • New York

ZOO



ANTHONY BROWNE

Red Fox

Appendix (I) Practical understanding of the IALTI and PB

IATLI	PB
Step 1: Theme and lesson planning During this step the two boys' interests were included into a meta-theme along with required aspects from the curriculum. The amount of weeks the meta-theme would cover was planned. In addition, strategies that these two participants needed were also planned. This step allowed the boys to be involved in the process. This kept their motivation and curiosity high. This step particularly focused on the importance of assessing which concepts (knowledge) needed to be developed for these boys so that their literacy gaps could be filled as effectively as possible. **Step 2: Theme initiation** Here the theme was introduced visually, in order to facilitate that their current knowledge (concepts) was activated and linked strongly to the new material. **Step 3: Shared reading** This step emphasised that books were carefully selected. If the chosen book was	The boys were explained what philosophical questions were. This was done by explaining to them that philosophical questions are often an attempt to answer 'big' questions in life, for example "Who am I?" or "What is the right thing to do?" It was explained to the boys that its often good to seek out 'big' questions as it seems to give us a sense of purpose or satisfaction. Open–ended questions were explained using examples and the boys were encouraged to use them. At first, philosophical questions seemed difficult for the participants to grasp, therefore developing philosophical questions was practised. During this time it was made clear that philosophical questions are not intended to be 'hard' questions, but that they are in fact questions that make you think. In addition, it was explained that philosophical questions also do not have one right or wrong answer but rather that everyone's thoughts and ideas are equally important.

not theme based, some preparatory work was done regarding the content. Initially, oral interaction regarding the book was done. This strategy activated schema and also showed the therapist where there were gaps in the participants knowledge. The story was then either read to the child or we took turns reading pages. Constant interaction continued throughout the reading process. Vocabulary was also developed as old and new schemas were constantly linked. Strategies such as prediction and problem-solving were constantly motivated. In addition, literacy conventions were taught throughout this process. After the story was read, a discussion followed about what was liked or disliked about the book, this taught evaluation skills to the participants. **Step 4: Text-based task (TBT)** Practical activities were designed for the boys in the context of the theme, during this step. While doing the activity, they listened and talked to the researcher about what they were doing while being assisted with vocabulary, if it was needed. Thereafter, results of their activities were described. They then dictated the process of the activity, which the researcher wrote	The various attributes of the P4C process was also discussed and understood by the participants. These included: • Active listening • Critical thinking • Creative thinking • Caring thinking • Collaborative thinking • Co-operative engagement • Democracy • Developing questioning skills • Vigilant reasoning • Meta-cognition PB activities consisted of the boys choosing picture books and developing philosophical questions from these books. **Participant X chose the following picture books:** • Changes-Anthony Brown • Willy the Whimp- • The Zoo-Anthony Brown • The Tunnel-Anthony Brown

for them. After that, they read the text and the reseacher wrote (published) the text. Some associated writing practices were done. The published text was read repeatedly. The participants were thus involved in talking, reading, writing and listening and the researcher generated language before writing. In the process, the children developed strategies such as prediction, grammar production and problem solving. TBT's are meant to be practical and authentic so that it arouses interest, and improves motivation to read and write (Harcombe, 2003). **Step 5: Publishing** In this phase the researcher typed the story out into a Big Book which was illustrated and read to the participants. Publishing the book gave meaning to reading and writing. It also created opportunities for them to practice reading (repeated reading). It helped to build vocabulary and concepts and allowed them to enjoy what they had made, giving them a sense of mastery and motivation (Harcombe, 2003). **Step 6: Literacy-Based Practises** This step allowed the researcher to design	**Participant X developed these philosophical questions:** • How much do you have to change before you loose yourself? • What is a good friend? • If you could change into anything, what would you change into and why? • What scares people? • Is it good to be a wimp? • Is it good to be a bully? • Must you always be the sorry one? • Do you think zoo's are cruel to animals? • Do animals in the zoo miss their environment? • Do you think people live in cages? • What makes a good brother? **Participant X chose these philosophical questions to discuss:** • What makes a good brother? • What scares people? • Do you think zoo's are cruel to animals? • If you could change into anything, what would you change into and why?

strategies that provided extra work and practice according to the individual needs of each child. Various activities within this step included: *Repeated Reading:* Reading the text, which the children published, over and over again. *Sentence Matching:* The participants were given duplicate copies of a few sentences from the dictated text. Sentences were cut up and mixed and matched. They read sentences aloud. This task helped the participants to gain practice in many skills, such as sentence construction, the concept that words make up sentences, linking meaning to vocabulary and punctuation, as well as invaluable practice in associative linking to meaning for individual words. *Word Matching:* Here the boys played matching games such as Lotto, Bingo, etc. with individual words they did not recognise. Many function words and irregular spelled words were used, as poor successive processors do not easily automise these words. *Shared Writing:* The boys wrote their own stories, individually. Planning was done with them, allowing them to be more confident when they wrote. *Simple Phonics and Sound Families:* During this step we talked about words that	These questions were discussed, practising the P4C skills. Thereafter, a book or a poster was made summarising the main points of discussion. This helped with meta-cognition (as we were thinking about our thinking) clarification, and consolidation of what was discussed. **Participant Y chose the following picture books:** • Changes-Anthony Brown • The Zoo-Anthony Brown **Participant Y developed these philosophical questions:** • How does it feel having a new sister or brother? • Is change good? • What would you do if your life changed? • What is change? • If I could be any animal I would be… • Do animals have dreams? • Do people act like animals? • How does it feel to be trapped?

look the same when reading and writing. The participants attention was drawn to letter clusters that looked the same e.g. cat, hat, sat that is, they had the same endings. This consolidated foundation literacy skills for the boys as they practiced rhyming, and it also taught them to cluster sounds together as an aid to assist with the decoding of words when they don't know how to read or write a word. Dictionaries were also provided for the boys. As new vocabulary was learnt they wrote it in their dictionaries under the correct alphabet. This was extremely useful when the participants were unable to spell words, as they looked for the word in their dictionaries. These words were used when they wrote their own stories. All of these steps were done in conjunction with the curriculum. Evaluating the administration of these activities in conjunction with PB would determine whether or not the combination of PB and the IATLI develop literacy skills with the participants in this study.	**Participant Y chose these philosophical questions to discuss:** • What is change? • If I could be any animal I would be… Similar to X, these questions were discussed, practising the P4C skills. Thereafter, a book or a poster was made summarising the main points of discussion. This helped with meta-cognition (as we were thinking about our thinking) clarification, and consolidation of what was discussed.

Appendix J: Table illustrating results found in pre and post testing for X

Pre Assessment Results	***Post assessment Results***
CTOPP-Age Equivalent Scores: Ellision: 7 Blending Words: 14 Memory of Digits: 12.6 Rapid Digit Naming: 11 Non word Repetition:6.6 Rapid Letter Naming:11.3 Rapid Colour Naming: 9.9 Phoneme Reversal: 6.6 Rapid Object Naming: 10.6 Blending Non words: 14.9 Segmenting Words: 13.3 Segmenting Non Words: 8.6 **PASP TEST- Age Equivalent Score** Between 8-6 to 8-11 **PhAB- Phonological Assessment** Battery: 85 mean=average	CTOPP-Age Equivalent Scores: Ellision: 2.6 Blending Words: 14.9 Memory of Digits: 12.6 Rapid Digit Naming: 14 Non word Repetition: 14 Rapid Letter Naming: 12.6 Rapid Colour Naming: 7.3 Phoneme Reversal: 14.9 Rapid Object Naming: 8.6 Blending Non words: 14.9 Segmenting Words: 14.9 Segmenting Non Words: 10.3 **PASP TEST- Age Equivalent Score** Between 8-6 to 8-11 **PhAB- Phonological Assessment** Battery: 85 mean=average

Table illustrating results found in pre and post testing for Y

Pre-testing results	***Post-testing results***
CTOPP-Age Equivalent Scores:	**CTOPP-Age Equivalent Scores:**
Ellision: 7.9	Ellision: 14
Blending Words: 9.6	Blending Words: 14.9
Memory of Digits: 6.6	Memory of Digits: 14.9
Rapid Digit Naming: 9.9	Rapid Digit Naming: 14.9
Repetition: 7.5	Non word Repetition: 8.3
Rapid Letter Naming:9.3	Rapid Letter Naming: 9.9
Rapid Colour Naming: 9	Rapid Colour Naming: 10.6
Phoneme Reversal: 5.9	Phoneme Reversal: 8.9
Rapid Object Naming: 10.3	Rapid Object Naming: 10.6
Blending Non words: 7.6	Blending Non words: 14.9
Segmenting Words: 14.9	Segmenting Words: 14.9
Segmenting Non words: 14.9	Segmenting Non words: 8.6
PASP TEST- Age Equivalent Score	**PASP TEST- Age Equivalent Score**
Between 8-6 to 8-11	Between 8-6 to 8-11
PhAB- Phonological Assessment Battery: 85 mean=average	**PhAB- Phonological Assessment Battery: 85 mean= average**

Appendix K: Information sheets and HREC (Education) 2011 application form

APPLICATION TO THE HUMAN RESEARCH ETHICS COMMITTEE
(WITS SCHOOL OF EDUCATION) UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG,
FOR CLEARANCE OF RESEARCH INVOLVING HUMAN PARTICIPANTS

Please complete this checklist and attach it to the FRONT of your application form. Incomplete applications will be returned. Submit THREE copies to the Ethics Office. Applications are most often turned down because basic instructions and hints have not been followed. Please carefully read pages 6-8 of this form as the list of common errors and hints will assist in completing the application. Please ensure that all your documents look professional, i.e. check for language and spellings errors. A copy of the GDE Application Form to conduct research in government schools is generally obtainable from your supervisor or from the GDE website.

If the application form is completed in detail, no research proposal needs to accompany the application. However, if the committee feels there is insufficient information provided in the application then a copy of the research proposal may be requested. This could lead to a delay of several months for clearance to be granted).

	FORMAT OF APPLICATION	TICK or N/A
01	Have you completed the HREC (Education) 2011 application form?	✓
02	Has the application been signed by the supervisor?	✓
	INSTITUTIONAL CONSENT	
03	If research is at a GDE School has application for consent been applied for/given? A copy of the application/letter of permission must accompany this application	N/A
04	If research is at WITS has consent been given by the authority in question?	N/A
05	If research is at independent school has consent from school been obtained?	✓
06	If research is outside SA has consent been obtained from relevant Ministry?	N/A
	PARTICIPANT INFORMATION SHEET (do not refer to participants as subjects)	
07	Are interviewees assured that their role is voluntary?	✓
08	Is there a guarantee of anonymity or confidentiality?	✓
09	Are there rights of withdrawal with no fear of consequences?	✓
10	Are the participants under 18? Information and consent letters for parents and minors?	✓
11	Does the consent form have sufficient information for the participant to know what it involves?	✓
	RESEARCH DETAILS	
12	Is there adequate information about who and when interviews will happen?	✓
13	If interviewees are vulnerable what can be done to protect them?	✓
14	How will confidentiality be preserved?	✓
	AUDIO AND VIDEO TAPING	
15	If there is to be audio or video taping is there adequate justification?	✓
16	If there is to be video taping is there a separate consent letter?	✓
	POST RESEARCH INFORMATION	
17	Will the data be kept safely and securely?	✓
18	Will the information be destroyed after 3/5 years? How?	✓
	ISSUES OF PROFESSIONALISM	
19	Have you carefully checked for spelling and grammatical errors in all documents?	✓
	MORE COMPLEX ETHICAL ISSUES	
20	Is there a conflict of interests - how will this be dealt with?	N/A
21	Do any of the participants stand to be severely prejudiced or placed at risk? Are there measures to protect them?	N/A
22	Does the research topic particularly deal with invasive issues? Are there measures to deal with this?	N/A
23	Is this a high risk application?	N/A
24	Are there any legal implications?	N/A

THREE COPIES OF THIS APPLICATION FORM AND ALL SUPPORTING DOCUMENTS NEED TO BE SUBMITTED

APPLICATION TO THE HUMAN RESEARCH ETHICS COMMITTEE
(WITS SCHOOL OF EDUCATION) UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG,
FOR CLEARANCE OF RESEARCH INVOLVING HUMAN PARTICIPANTS

Unless applications are received by the 15th of the month, they will be carried forward to the following month for consideration. Please note incomplete applications will NOT be considered at all.

PROTOCOL NUMBER (for office use only): 2011ECE060

This application must be electronically completed and three hardcopies of the application and ALL appendices submitted to the Committee Secretary.

NAME : Prof/Dr/Mr/Mrs/Ms/Miss	MISS H HARPER
STUDENT NO.	0609251X
DEPARTMENT/INSTITUTION	FACULTY OF EDUCATION UNIVERSITY OF THE WITWATERSRAND
FULL TIME OR PART-TIME	PART-TIME
TELEPHONE NO. AND EXTENSION	084 342 5595
E-MAIL	Helenharp@gmail.com
POSTAL ADDRESS	160 THE BRIDLES SUNDOWNER GAUTENG CODE 2161
Name and Tel number of Supervisor	PROFESSOR KARIN MURRIS-011 717 3025

TITLE OF RESEARCH PROJECT
DOES INCLUDING PHILOSOPHY WITH CHILDREN PICTURE BOOKS (P4CP) WITHIN THE INTEGRATED APPROACH TO LITERACY INSTRUCTION (IATLI) IMPROVE LITERACY SKILLS IN TWO BOYS', WHO ARE AT RISK OF DYSLEXIA?

Is this research for degree purposes? If so, for what degree, and has it been approved by the relevant higher degrees committee or other relevant unit?

YES, FOR DEGREE MED EDUCATION.

Where will the research be carried out?

ST. PETER'S PREPARATORY SCHOOL SUNNINGHILL.

Objectives Of The Research (Please List)

THIS STUDY AIMS TO EVALUATE AND UNDERSTAND HOW THE IATLI FACILITATES LITERACY SKILLS WITH TWO BOYS AT-RISK OF DYSLEXIA. IT ALSO AIMS TO ASCERTAIN WHICH ELEMENTS OF PHILOSOPHY WITH CHILDREN ENRICHES THE IATLI.

Who will conduct the research and who will supervise the project?

MISS H HARPER WILL CONDUCT THE RESEARCH AND PROFESSOR MURRIS WILL SUPERVISE THE PROJECT.

Protocols submitted to the Committee must have the information that will enable it to judge the safety of procedures or confidentiality of information for research. The following questions have been designed for this purpose and should therefore be answered as fully as possible.

1. **Give a brief outline of the proposed research including a definition of procedures.**

THE MAIN AIM OF THE RESEARCH IS TO EXPLORE HOW THE IATLI AND P4CP IMPROVES LITERACY SKILLS WITH TWO BOYS AT-RISK OF DYSLEXIA. FIRSTY STUDENT WILL WAIT FOR ETHICS CLEARANCE. THEREAFTER, THE SCHOOL WILL BE APPROACHED TO GAIN POSSIBLE PERMISSION. THE PARENTS AND RESEARCH PARTICIPANTS WILL THEN BE INVITED TO PAR-TAKE IN THE STUDY. THE AIM AND PROCEDURE WILL BE EXPLAINED TO BOTH PARENTS AND PARTICIPANTS. BOTH PARTIES WILL THUS BE AWARE THAT THE PARTICIPANTS WILL ATTEND THEIR USUAL REMEDIAL THERAPY SESSION, (AN HOUR A WEEK) WHERE THE IATLI (WHICH HAS BEEN UTLIISED TO DATE) WILL CONTINUE TO BE USED, HOWEVER, AN ADDITIONAL ELEMENT (P4C) WILL BE ADDEDD TO THEIR SESSIONS. THIS MEANS THAT THE PARTICIPANTS AND MYSELF WILL ENGAGE WITH PICTUREBOOKS. THIS APPROACH WILL BE IMPLIMENTED FOR A PERIOD OF THREE MONTHS WHERE AFTER THE STUDENTS WILL BE RE-TESTED (AS WOULD HAVE OCCURRED REGARDLESS OF THE STUDY) THIS WILL AID IN DETERMINING IF PROGRESS HAS BEEN MADE. IN ADDITION, TO THE RE-TESTING THE PARTICIPANTS AND PARENTS WILL BE MADE AWARE THAT THEIR PROGRESS WILL ALSO BE DETERMINED BY SCHEDULED INTERVIEWS WITH THE RELEVANT ENGLISH TEACHERS, AS WELL AS RESEARCHER AND PARTICIPANTS KEEPING DEVELOPMENTAL DIARIES.

2. What type of information is to be gathered? (When a scale, questionnaire or interview schedule will Be used, please attach a copy.)

DATA WILL BE COLLECTED BY MEANS OF SEMI-STRUCTURED INTERVIEWS WITH THE TWO ENGLISH TEACHERS OF THE SCHOOL. AREAS OF FOCUS FOR THE INTERVIEWS WILL BE BASED ON AREAS THAT EMEREGED FROM THE IATLI AND P4CP AS BEING IMPORTANT. THESE INTERVIEWS WILL BE DIVIDED INTO VARIOUS SECTIONS HIGHLIGHTING DIFFERENT IMPORTANT THEMES. PLEASE FIND ATTACHED A PRELIMINARY COPY OF THE INTERVIEW AND FOLLOW UP INTERVIEW SCHEDULE (APPENDIX).

A DIARY WILL ALSO BE KEPT BY THE TWO LEARNERS AND RESEARCHER. THE PURPOSE OF THIS IS TO DOCUMENT THE CHILDRENS RESPONSE TO THE IATLI AND P4CP.

3. **If you intend videotaping participants, please provide a full motivation why such a procedure is considered necessary. Letters of consent should also indicate the necessity of using a videotape, with a clear stipulation of how the will be used.**

N/A

4. **How will informed consent be obtained? (Please attach participants' information sheet, informed consent form or forms.)**

PARTICIPANTS IN THE RESEARCH WILL BE LEARNERS AT-RISK OF DYSLEXIA AND THEIR ENGLISH TEACHER.

THE SCHOOL WILL FIRSTLY BE APPROACHED AND PERMISSION FROM THE SCHOOL PRINICIPAL WILL BE OBTAINED.

AFTER SUCH PERMISSION HAS BEEN OBTAINED, PARTICIPANT'S PARENTS WILL BE INVITED TO PARTICIPATE IN THIS STUDY. IF INTEREST IS EXPRESSED PARTICIPANTS WILL BE PROVIDED WITH AN INFORMATION SHEET, OUTLINING THE DETAILS OF THE RESEARCH (APPENDIX).

A WRITTEN CONSENT FORM WOULD BE PROVIDED TO THE SCHOOL AND PARENTS. PARENTS AND PARTICIPANTS WILL SIGN THESE.PARENTS WILL SIGN THESE BECAUSE PARTICPANTS ARE STILL CONSIDERED TO BE MINORS AND PARTICIPANTS WILL SIGN THESE FOR THEIR PARTICIPATION IN THE RESEARCH PROJECT. THE TEACHERS WILL SIGN THEIRS FOR PARTICPATION IN THE RESEARCH. IN ADDITION, THEY WILL BE ENCOURAGED TO ALSO GIVE WRITTEN CONSENT FOR THE INTERVIEW TO BE TAPE RECORDED AND TRANSCROBED VERBATIM. (APPENDIX)

5. Who will the participants be?

TWO BOYS AT-RISK OF DYSLEXIA.

5.1 What is the age range of the participants?

ONE GRADE 5 LEARNER: 11 YEARS OLD
ONE GRADE 6 LEARNER: 12 YEARS OLD

5.2 How will the participants be selected and exactly what will they be told when asked to participate in the research?

PARTICIPANTS WILL PURPOSEFULLY BE SELECTED. THE LEARNERS ARE CHOSEN AS THEY ALL EXPERIENCE DYSLEXIA OR DYSLEXIC TENDENCIES. THE PARTICIPANTS PARENTS WILL BE INFORMED OF THE RESEARCH AIMS, THE RESEARCH RATIONALE AND EXACTLY WHAT WOULD BE EXPECTED OF THEM. A TRUSTING RELATIONSHIP HAS BEEN ESTABLISHED WITH THESE PARENTS AS THE BOYS HAVE BEEN ATTENDING REMEDIAL THERAPY WITH ME FOR THE PAST TWO YEARS.

5.3 Are the participants considered to be vulnerable individuals (for example: pregnant wome orphans, children under the age of 18 etc.)?

THE PARTICIPANTS WHO ARE DIRECTLY INVOLVED ARE CONSIDERED TO BE VULNERABLE INDIVIDUALS. THE PARTICIPANTS WHO ARE INDIRECTLY INVOLVED ARE NOT CONSIDERED TO BE VULNERABLE

6. Will the research be of any direct benefit to the participants?

YES (delete whichever is not applicable)

If 'YES' elaborate briefly.

YES, IT WILL PROBABLY IMPROVE THEIR LITERACY SKILLS.

7. Are there any risks involved for the participants? (For example – legal, psychological, financial or physical risks) If "yes", please identify them and explain how they will be minimized.

THERE SEEM TO BE NO RISKS INVOLVED.

8. How is confidentiality to be guaranteed?

ONLY THE RESEARCHER AND THE SUPERVISOR, PROF MURRIS, WILL HAVE ACCESS TO THE RESEARCH MATERIAL. THE TEACHERS AND PRINCIPAL WILL BE IN DIRECT CONTACT WITH THE RESEARCHER ONLY. THE INTERVIEW WILL BE HELD IN A PRIVATE SECLUDED LOCATION ON THE SCHOOLGROUNDS. WHEN THE REPORT IS WRITTEN, IT WILL NOT INCLUDE ANY IDENTIFYING PARTICULARS OF ANY OF THE PARTICIPANTS INVOLVED. THE BOYS IDENTITIES WILL NOT BE REVEALED TO ANYONE OUTSIDE OF THE RESEARCH PROJECT AT ANY TIME. IN ADDITION TO THE NAMES BEING WITHHELD THE DATA WILL BE STORED SAFELY FOR THREE TO FIVE YEARS AFTER THE STUDY HAS BEEN CONDUCTED.

9. What is to be done with the raw research data after completion of the project? (Specify the end-use of audio tapes and/or video-tapes as well.)
Raw research will be locked in a safe for 3-5 years after conducting the study. Thereafter, it will be destroyed.

AUDIOTAPES OF THE INTERVIEW WILL BE TRANSCRIBED AND THEN DESTROYED BETWEEN 3-5 YEARS.

10. Has permission been obtained from the relevant authorities: e.g. Gauteng Dept of Education or other appropriate governing body? (Please attach copy).

NO, IT IS A PRIVATE SCHOOL.

11. How will the end results be reported and to whom?

THE RESULTS OF THE RESEARCH WILL BE REPORTED IN A RESEARCH REPORT. AN OUTLINE OF THE RESULTS WILL BE REPORTED TO THE PARTICIPANTS PARENTS AND TEACHERS IN A LAST CONTACT SESSION. AN OPPORTUNITY WILL THEN BE PROVIDED TO ASK QUESTION REGARDING THE RESULTS OF THE RESEARCH.

In signing this form, I, the supervisor of this project, undertake to ensure that any amendments to this project that are required by the Human Research Ethics Committee are made before the project commences.

Please print name:

DATE: _____ SUPERVISOR'S SIGNATURE: _____

DATE: _____ APPLICANT'S SIGNATURE: _____

THREE COPIES OF THIS APPLICATION FORM AND ALL SUPPORTING DOCUMENTS NEED TO BE SUBMITTED

Appendix 1

Notes to assist in completing the form (please discard pages 6-9 before submitting the application).

1. If not employed by the University or one of the University's teaching hospitals, please indicate clearly where correspondence should be sent (postal and/or email addresses should be provided along with telephone numbers).

2. If employed by the University, the requirement to submit a full application and provide all the supporting documentation holds. A protocol detailing background to the research, the design of the investigation and all procedures, needs to be submitted with the application.

3. When research is conducted in a state school an application to conduct such research must be sent to the relevant provincial education depart such as the GDE on the requisite form. Permission must also be requested from the relevant school principal(s). Where an independent school is involved permission to conduct the research must be obtained from the School Principal and the School Governing Body. Evidence of such requests must be attached to the HREC application form.

4. Whether written or verbal consent is to be obtained, the HREC requires a Participant Information Sheet written in a language understandable to the participant (or guardian) detailing what the participant will be told. Ideally such information sheets should begin with the researcher introducing him/herself and indicating that he/she is registered at the University of the Witwatersrand for a specific degree. The title of the project should also be given. The Participant Information Sheet should also include the following:

   (a) Participation is voluntary, and refusal to participate will involve no penalty or loss of benefits to which the participant is otherwise entitled. (Where school learners are involved the researcher must devise strategies for managing those learners whose guardians have not consented to audio and/or video recording.)

   (b) The participant may discontinue participation at any time without penalty or loss of benefits.

   (c) A brief description of the research, its duration, procedures and what the participant may expect and/or be expected to do.

   (d) Any foreseeable risks, discomforts, side effects or benefits.

   (e) Disclosure of alternative available to the participant if risks are involved.

   (f) A professional contact name and 24 hour telephone number.

   (g) Explanation that assistance will be provided in the case of adverse response to methods of study.

   (h) Separate Informed Consent Forms should be provided (where applicable) for interviews, audio-recording and video-recording. Video-recording is considered more intrusive than interviewing or audio-recording. If a researcher wishes to video-record, the Participant Information Sheet should clearly state why video-recording is considered essential to the project. The end-use of all data (including recordings) should be stated.

   (i) Special care should be taken with vulnerable populations and assent should also be gained for children over 7 years.

   (j) Please ensure to INVITE participant to take part in the study.
   The HREC requests that the participant be INVITED (using a friendly tone)

5. The Informed Consent Form should include a clear statement that the participant is consenting to involvement in research, and not to treatment. Any personal benefit should be mentioned when this is relevant. An important piece of information is that the participant is free to withdraw from the study at anytime without prejudice. If this is not made clear, the researcher risks the accusation that consent may have been obtained by subtle coercion (that is, the possibility of prejudice against the participant).

Further information is available from the following sources:

Medical Research Council – www.mrc.ac.za
Human Sciences Research Council – www.hsrc.ac.za
Australian website – http://www.ug.edu.au/research/services/human

When submitting, please make sure you have complied with the checklist provided.

****

This is a list of COMMON ERRORS in completing the application form - please ensure that you DO NOT MAKE THE FOLLOWING MISTAKES (discard pages 6-8 before submitting the application)

PARTICIPANT INFORMATION SHEET

* Researcher does not introduce her/himself; does not write in the first person.

* No clear specification of the purpose of the study is given.

* No clear description of the research procedures to be used in the study is provided. Nor is an indication given as to the end-use of data (interview data, questionnaires, audio-recordings and/or video-recordings (i.e. just for a research report or also for journals articles, conference proceedings etc. Will the video-recording be submitted for examination along with the research report? What strategies will be used to maintain confidentiality/anonymity?)

* There is no clear statement of the time that a respondent/participant will take to complete the requirements of the study.

* No explanation to the potential respondent of how or why he/she was selected.

* No clear, "up front" invitation to participate.

* No clear, "up front" statement that participation in the study is entirely voluntary; that a choice not to participate will have no adverse consequences; that should the person choose to participate, he/she may decline to answer questions and may withdraw from the study at any time.

* Wording anticipates or presupposes participation.

* If the respondents are from a workplace or similar institutional setting (e.g. a university) a lack of clear reassurance that they do not risk job loss or other institutional sanctions.

* The wording of the participant information sheet is unnecessarily technical/sophisticated.

* The specific guarantee of confidentiality and anonymity is not provided.

INFORMED CONSENT

* While parents of children are asked to agree to their children's participation in the study, children of an age to comprehend informed consent need to be asked themselves in a language appropriate to the age level. (This can include pre-school children.)

* In studies where respondents do not necessarily have to be audio-taped or video-taped, a separate consent form for the recording is not provided. Parents and respondents have to be informed what the end-use of the recorded data will be (only for accurate transcriptions, or for use at conference proceedings etc.).

* Using parental "consent forms" which are really "refusal forms". (It is not acceptable to have a form which says: "If you do not return a written refusal to me in x days I will assume that you grant permission for your child to participate in the study.")

* The lack of formal permission from a host organization. Where a study is to be carried out in a host organization, e.g. school, university, work-place, a letter is required from the host organization granting the researcher access and expressing support for the study.

RESEARCH TOOL AND PROCEDURES

* Inadequate measures to protect the identity of respondents. (Names, addresses, student numbers etc should not be recorded on the research instruments together with respondents' answers. A coding system should be employed.)

* The opportunity for anonymous return of completed questionnaires is not provided.

* The effects of coercion are not fully accounted for (e.g. lecturers asking students whom they teach and whose work they mark to participate in a research study).

* Excessive payments are proposed as "compensation" for loss of work time or costs of travel.

* Bribery is used to promote participation (e.g. students are offered "an extra 1% on the assignment mark" if they fill in a research questionnaire).

* In cases where the participation in a research procedure is likely to awaken feelings of past trauma, not making arrangements for a helping person to be available to counsel the respondent.

* In cases where the questionnaire is not available for submission with the clearance application (for instance, when the questionnaire will be finalized only after a pilot study still to take place), the researcher gives no indication of the type of questions that he/she is likely to use.