TEACHERS' INTERACTIONS DURING STORYBOOK READING

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Two are better than one, because they have good return for their work.
If one falls down his friend can help him up
A cord of three strands is not quickly broken
(Ecc 4: 9, 10 &12)

No matter what you do, or where you are going the Lord is always there with you, He provides assistance and becomes the third cord in your strand to strengthen you along the way.

ABSTRACT

Introduction: The development of thinking skills is increasingly evolving as the one most important goals of formal primary and secondary education. Storybook reading is a well-established routine in early learning classrooms ranging from early preschool to foundation phase. As these interactions can typically be quite rich in exchanges and inquiry, the impact of book reading routines is significant, particularly as reading to young children plays a significant role in preparing them for later schooling.

Aim: To describe how teachers interact during storybook reading with Grade R children.

Methods: This study investigated five teacher's interactions during storybook reading with their grade R (reception) classes in rural Zululand. The teachers were videotaped during 3 storybook reading sessions, these interactions were translated, transcribed and coded.

Results and analysis: The results indicated that all five teachers interacted with the children throughout the storybook reading procedure. The teachers used a number of techniques that were suggested by researchers to increase oral language gains, emergent literacy gains and high cognitive thinking skills. Although teachers mainly used low cognitively challenging utterances, it was found that the teachers who gave the children the focus of control in the session, produced more high cognitively challenging utterances. The unfamiliar book was found to produce a higher percentage of high cognitive level utterances and teachers, who focused, not only on the story itself but on other concepts, produced more high level cognitive utterances. In general teachers seemed to favor requesting of information as a method of interaction and the highest percentage of high cognitive utterances, were found during the after reading period. Directions for intervention and for future research are discussed in light of the results.

KEY WORDS

Storybook reading, teacher, interaction, cognitive level, type of utterance, Blooms taxonomy, utterance, storybook presentation, reading style, Grade R

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TEACHERS INTERACTIONS DURING STORYBOOK READING

CHAPTER 1: INTRODUCTION

1.1 Introduction

"Perhaps most importantly in today's information age, thinking skills are viewed as crucial for educated persons to cope with a rapidly changing world. Many educators believe that specific knowledge will not be as important to tomorrow's workers and citizens as the ability to learn and to make sense of new information."

(Gough, 1991, pg 1)

The development of thinking skills is increasingly evolving as the one most important goal of formal primary and secondary education. The array of resources dedicated to teaching children to think, developing critical thinking skills, developing problem solving skills and other thinking skills range from teacher guides and parent handbooks to children's storybooks, games, puzzles and other educational toys. The entire education system is geared towards teaching of thinking skills. The exam papers are formulated with about 30% to 50% of the questions testing high level thinking skills in grade 12, such as application, analysis, evaluation and creation (South African Department of Education, 2005). As Peter Facione states, "Education is nothing more, nor less, than learning to think" (Labush, 2001).

A child's school success is thus directly linked to adequate thinking skills, and problem solving abilities (Cotton, 1991). In view of the importance of thinking skills, the question arises as to how these thinking skills can be acquired. As Cotton (1988) states, children need to be taught strategies to draw inferences and be given practice to produce high cognitive level responses. High cognitive thinking does not just happen, it needs to be taught. An open and positive classroom climate may promote high level thinking, however these skills still need to be facilitated (Cotton, 1991). This is in agreement with Vygotsky's theory which suggests that, through mediation, children internalise higher mental functions (Iturrondo & Velez Vega, 2007; Wikipedia, 2007).

It is important to note that high level thinking skills do not develop in isolation. These skills develop in the young child, in conjunction with oral and emergent literacy skills

(Hong & Aiex, 1995). In theory it is suggested that that oral and written languages are related (Kaderavek & Sulzby, 1998), but also that it is through speech that young children organise their thinking and focus their ideas (Lyle, 1993).

Teaching oral language, emergent literacy and high level thinking skills is not confined to the formal school setting, but should be encouraged as early as possible with activities that could lead in to later literacy learning (Masny, 1996). Activities such as symbolic role play, speaking about pictures or objects are suggested by Masny (1996).

In the context of rural northern Zululand, where the vast majority of adults living in the area are still illiterate, young children spend most of their time tied onto the back of their working mother, with very little interaction (Personal communication, Miss B. Walters, October 2006), the result is minimal exposure to any form of pre-literacy skills prior to school entry. Therefore the first contact that these young children have with formal literacy education is in Grade R. Grade R teachers are therefore often in the critical position of being the first individuals to assist these children develop both oral, emergent literacy and thinking skills.

Storybook reading, being one of the common activities in a Grade R classroom, is an ideal context in which to teach oral, emergent literacy and thinking skills. Storybook reading is not only a time of enjoyment but also an ideal teaching strategy, as it is a relaxed time of discussion which can be guided to facilitate learning without force.

Storybook reading is a versatile medium through which oral skills can be taught, such as vocabulary acquisition (Otaiba, 2004; Senechal, Thomas & Monker, 1995) and narrative skills (Stickland, Morrow, Feitelson & Iraqi, 1990; Lonigan & Whitehurst, 1998). It can also facilitate emergent literacy skills such as print concepts (Allor & McCathren, 2003; Whitehurst et al, 1994), phonological awareness (Allor & McCathren, 2003) and alphabetic awarenss (Crain-Thoreson & Dale, 1999). Storybook reading can be used to develop high level thinking skills through modeling of thought patterns, acknowledging of responses, allowing children active participation (Cotton, 1991) and decontextualisation of language (Otaiba, 2004).

Reading a story to children thus provides them with oral input, and at the same time, provides an opportunity for fostering their emerging literacy and high level cognitive thinking skills.

This research project thus investigated the story reading practices of Grade R teachers from rural northern Zululand. The researcher focused specifically on the extent to which and the manner in which teachers used story book reading to foster oral language skills, emergent literacy skills and high level cognitive thinking skills in the preschoolers, by documenting the type of questions and utterances used by the teachers during the storybook reading process.

1.2 Definition of terms

1.2.1 Analytical talk

An utterance that analyses a situation, and brings it to a logical conclusion. Analysis is usually solicited by the teacher to guide children into drawing information from a situation that may not necessarily be immediately apparent. (Dickinson & Smith, 1994)

1.2.2 Chiming

A sing-song method of repeating information as a group. This may be done with the teacher or started by the teacher and followed through by the group of children.

1.2.3 Comprehension

The ability to listen and understand, at such a level, that the individuals are able to re-tell the story in their own words (Otaiba, 2004).

1.2.4 Decontextualisation

This is a procedure where the content from the story is taken and applied to the child's life in a practical way (Otaiba, 2004).

1.2.5 Dialogic reading style

This is an interactive method of reading where adults use techniques to encourage participation from children. Methods such as making connections between the book

and child's experiences, praising and encouraging, questioning, making predictions and defining or clarifying new vocabulary. (Jiminez, Filippini & Gerber, 2006)

1.2.6 Emergent Literacy

The development of behaviors, that precede formal instruction to literacy, but that lead into it (The online teacher resource, 2007).

1.2.7 Exploratory talk

This is a method of discussion in which the individual seeks to explore their environment through techniques such as, reasoning, sharing of information, accepting of challenges and coming to an agreement together with the group (Wegerif, Littleton, Dawes & Mercer, 2004)

1.2.8 High cognitive thinking

For the purpose of this study "high cognitive thinking" is an umbrella term for thinking skills that require complex thought processes, such as critical thinking, Socratic thinking, creative thinking, high-order thinking, logical thinking and problem solving and so forth. These skills are found on levels 3 (application), level 4 (analysis), level 5 (evaluation) and level 6 (creation) on Blooms revised taxonomy (Krathwohl, 2002)

1.2.9 Interaction

For the purpose of this study an interaction is a single utterance which a teacher uses, which is not verbatim reading but is aimed at engaging the children. This may be done by responding to the child, questioning or providing more information.

1.2.10 Phonological awareness

This is the ability of a child to recognise that speech is comprised of words and later individual sounds (Allor & McCathren, 2003).

1.2.11 Reading style

This term describes a combination of specific patterns and techniques used during storybook presentations that have been grouped to describe a specific style. These reading styles have been defined in various studies along varying parameters e.g.

Senechal, Thomas and Monker (1998) defined a passive versus an interactive style, while Dickinson and Smith (1994) defined the co-constructive style, the didactic-interactional style and the performance-orientated style. No new styles were defined for the purpose of the study, but definitions of styles as found in the literature were used to draw parallels to the results of this study and validate interpretations of results.

1.2.12 Reading technique

Reading techniques are specific techniques used during the reading of text from a book, such has how to hold a book, using a reading voice, indicating that we read from left to right and top to bottom and so forth (Allor & McCathren, 2003). Reading techniques do not describe other interactional techniques used during storybook presentation.

1.2.13 Storybook presentation

This term describes the overall way in which teachers presented the book to the children, including the actual reading as well as the teacher's interactions around the book and the story. Various techniques described include commenting, questioning, expanding on child's utterances (Jiminez, Filippini & Gerber, 2006), using imagination, making up rhymes and songs and letting children act out the story.

1.2.14 Utterance

An utterance, for the purpose of this study, starts when the teacher takes a speech turn and ends either when the speech turn is ended or the concept or purpose of the utterance changes.

1.3 Abbreviations

Grade R	Reception grade
PPVT-R test	Peabody Picture Vocabulary Test - Revised

1.4 Brief outline of chapters

Chapter 1 is a short introduction into the research study. It defines terms used and expands abbreviations, ending off with a description of the chapters that are to follow.

Chapter 2 provides a comprehensive literature review with discussions on the theoretical constructs that have guided the study, a critical evaluation of reading styles, effects of storybook reading and the use of different types of text. This chapter then ends in a conclusion and rationale for the present study.

Chapter 3 is the Methodology. This chapter starts with a description of the aims and sub-aims of the study, which then follows through to the research design and phases. The design used in the study is descriptive in nature and focuses on the classroom interactions of 5 teachers. After the description of the design, the pilot study is discussed, with the main and sub-aims of the pilot study, participants used, and changes made. Following the pilot study, is the main study with a context description, classroom description, participants, materials and equipment used as well as ethical considerations. The data collection, recording and translation procedures are then explained. The chapter concludes with information on the analysis of the data and reliability.

Chapter 4 focuses on the results and discussion of the study.

Chapter 5 is a synopsis of the finding from the study, a critical evaluation of the study and concludes with recommendations for further research.

1.5 Summary

This chapter provides an introduction into the rationale for the research study, which will be investigated in more detail in Chapter 2. A definition of terms and abbreviations then follows. The chapter concludes with a summary of the descriptions of all chapters that are to follow.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter provides the theoretical framework for the study by focusing on the impact of book reading activities on the language and cognitive functioning of young children. Firstly attention is paid to the benefits of book reading routines in facilitating language skills in children and the identification of research studies conducted on different reading styles of teachers during book reading routines. Thereafter the link between the type of exchanges in the classroom and cognitively higher level thinking skills are described. The chapter then ends with an analysis of the rural situation and a conclusion drawn from the information given.

2.2 Book reading routines in early learning classrooms

Storybook reading is a well-established routine in early learning classrooms ranging from early preschool to foundation phase. As these interactions can typically be quite rich in exchanges and inquiry, the impact of book reading routines is significant, particularly as reading to young children plays a significant role in preparing them for later schooling, and is seen as an emergent literacy experience (Valencia & Sulzby,1991;Whitehurst et al, 1994).

Iturrondo and Velez Vega's (2007) interpretation of Vygotskian theory suggests that for preschoolers, reading and writing are located in their zones of proximal development which indicates that this is an important time to integrate emergent literacy experience into their school programmes, as they are most likely to gain reading and writing skills more rapidly during this time.

Whitehurst et al (1994) investigated the effects that storybook reading has on four aspects of emergent literacy namely: language, writing, linguistic awareness and print concepts. From the results it was found that story reading in conjunction with a letter and sound programme increased writing and print concepts by 6 and 6.5 standardised factor scores respectively. These results are consistent with the summary that Otaiba (2004) presents, indicating how emergent literacy practises can be included in storybook reading to use

this as a basis or context on which to build emergent literacy learning. Allor and McCathren (2003) make mention of the fact that through actual reading of a book, teachers also model reading techniques, such has how to hold a book, using a reading voice, indicating that we read from left to right and top to bottom and so forth. Storybook reading, however, not only affects emergent literacy, but also vocabulary acquisition and provides children with more mature oral language skills.

Strickland**,** Morrow, Feitelson and Iraqi (1990) conducted a study with disadvantaged Arab children using a 15 – 20 minute reading session every day over 5 months and concluded that these experiences provided them with a higher percentage of clauses used, a greater variety of vocabulary and more cohesive story telling with a beginning, middle and end. These children out-performed the control group which received a language learning programme, with listening, comprehension and active language use as its focus. This study indicates the greater language maturity and richer vocabulary that storybook reading provided for the experimental group.

Elley (1989) also indicated the benefits of repeated story book reading by studying 168 pupils from urban and suburban schools. He found that reading a story three times; over seven days already produced an increase in vocabulary of between 13% - 21% in their study group. This vocabulary gain was in the form of receptive vocabulary and the understanding of word meanings. An increase in receptive vocabulary from storybook reading is consistent with results from numerous other researchers (Lonigan & Whitehurst,1998; Nagy, Herman & Anderson, 1985; Senechal & Cornell, 1993;Senechal, Thomas & Monker, 1995), who all found storybook reading to make a great impact on the receptive vocabulary of their study groups.

Improved understanding of word meanings was also documented in the research done by Senechal, Thomas and Monker (1995) who used a comprehension vocabulary test and found that children understood between 30% and 57 % of the words on the post-test which was an increase of between 6% and 21% from the pre-test. These results were found after two sessions of storybook reading on consecutive days.

Most research studies not only investigated vocabulary understanding and reception but also vocabulary production. Senechal, Thomas and Monker (1995) had a 3% to 25% gain

in production vocabulary with the assumption from the pilot study that children didn't know any of the words before the study. Senechal and Cornell (1993) yielded a mean gain of 6.75 target words across all their reading conditions. This, although there was a gain in productive word vocabulary, was not as great as the receptive vocabulary. Lonigan and Whitehurst (1998) also measured a higher production of overall words and a higher diversity of words in their high compliance centres with a specifically higher gain in adjectives than the control group.

Receptive and expressive vocabulary is however not the only gain reported by storybook reading routines, Lonigan and Whitehurst (1998) took this word production a step further and found that children in the experimental group not only produced more words but that they produced longer utterances than the control group, which was the same effect observed in Jimenez, Filippini and Gerber's (2006) research with Spanish speaking families.

The above effects on oral and emergent literacy skills are, however, also linked to the cognitive development of the young child, as it is theorised that it is through speech that young children organise their thinking and focus their ideas (Hong & Aiex, 1995; Lemke, 1983; Lyle, 1993). This indicates that oral language development and high level thinking skills are related.

2.3 Storybook reading and cognitively higher level thinking

Cognitive high level thinking, critical thinking, Socratic thinking, creative thinking, high-order thinking, logical thinking and problem solving are some of the terms used by educators, according to Jarema (2007). Although there are no universally agreed upon definitions for these concepts, some suggestions are that they all encompass a common concept of an individual analysing information and making decisions to come up with creative ideas and solve problems (Jarema, 2007; Klenz, 1987).

These cognitively high level thinking skills are considered to be vital for academic success (Cotton, 1991) and lifelong learning (Cotton, 1991; Jarema, 2007; Masny, 1996). They allow an individual to make sense of new information without having to learn every

concept that they will encounter and enables children to move beyond passive acceptance and memorisation (Klenz, 1987). These skills are vitally important as they allow the individual to continue learning in our rapidly changing world (Gough, 1991; Jarema, 2007). Thinking skills provide a method of understanding the unknown, critically evaluating information given and manipulation of present knowledge to gain future knowledge.

Blooms revised taxonomy (Krathwohl, 2002) has divided cognitive thinking skills into 6 levels of the factual category. These levels increase in cognitive difficulty from level 1, which is the least cognitively challenging to level 6, which is the most cognitively challenging. The first level is to "remember", which consists of the retrieval of relevant information from long-term memory, recognition of information and immediate recall. The second level is the level of "understanding". In this level children need to determine the meaning of oral, written and graphic communication and not only be able to produce it, as in the previous level. Level 3, requires application of information given or learnt, to produce an answer or execute a procedure. Level 4 is an analysis of materials given, breaking down of these materials and relating them to another structure. Level 5 requires evaluation and making of judgements based on criteria and standards. Level 6, the final level, requires creation i.e. placing elements together to form a novel, coherent whole.

Although no research was found on the effect of storybook reading on gains in cognitively high level thinking, Taggard, Ridley, Rudd, and Benefield (2005) state that through their literature review they found that storybook reading can be used as one of the mediums to encourage cognitive high level thinking as it has the ability to use all the techniques needed. This statement is based on the fact that thinking is motivated by questions. In order to develop thinking skills, the first concept for the teacher to understand is the importance of maintaining the child's natural sense of curiosity, ensuring that they feel comfortable asking questions and examining problems on their own in order to develop as independent thinkers (Fisher, 2007; Jarema, 2007). It is important to stimulate the child's thought process by encouraging children to ask questions and making learning fun and exciting (Jarema, 2007). An open and positive atmosphere in the classroom which encourages children to participate in classroom activities is thus important (Cotton, 1991; Jarema, 2007).

Although encouraging a positive climate in the classroom encourages cognitive high level thinking processes, it is not enough. Teachers need to actively encourage this process, one of the methods being modelling of the step by step thinking process, to indicate to children what takes place during the process (Cotton, 1991). This allows the children to hear the process and method of reasoning, which they can then apply to other situations. However, this should not be the only technique performed, as Moschovaki and Meadows (2005b) found that the more the teachers participate in the interaction, the less the children participate. This leads into the assumption that teachers allowing children to control the interactions, elicits more cognitive high level interactions from the children.

It is important to ask appropriate types of questions. Questions such as "why" and "what happens if …", as thought provoking questions that will encourage and guide children to discovering the answers on their own, are the type of questions that should be included in the learning process (Fisher, 2007; Jarema, 2007; Klenz, 1987). Cotton (1991) also indicates that redirection and probing can be used as techniques to stimulate thought patterns.

Lengthening waiting time to allow children time to respond to the question, not only provides time for a response but also encourages thinking about the question and forces the child to provide answers (Cotton, 1991).

Responding to children is vitally important in the learning process. This encourages children to continue with their thought processes (Cotton, 1991; Jarema, 2007; Klenz, 1987) and provides positive feedback for further learning.

Structured controversy that requires the children to participate in discussions and debates, providing reasons to back their arguments, develops their thinking patterns, as the child needs to indicate a thought pattern which will substantiate their reasoning (Klenz, 1987; Moschavaki & Meadows, 2005a).

According to Taggard, Ridley, Rudd and Benefield (2005) storybook reading can be used as one of the mediums through which one is able to teach cognitive high level thinking. For example, Topping and Bryce (2004) conducted a study in which they used peer tutoring through storybook reading to investigate the effects that modelling of questions,

interactive cognitive challenges, practice in analytical and critical thinking, scaffolding and intellectual feedback had on the cognitive high level thinking skills of 27 seven-year-old children. The intervention started with a six week paired reading procedure for both the control and the experimental group. The experimental group then went on to a 10 week paired reading and thinking programme, while the control remained with the pure reading programme. On the post-test the children in the experimental group showed a significant increase in the frequency of cognitively high level thinking skills and also presented with a more positive attitude towards reading.

In a study done by Wegerif, Littleton, Dawes and Mercer (2004) they used a "thinking together approach". The children were grouped with a facilitator for discussion sessions, and, although this study did not specifically focus on storybook reading, the use of discussions can be extracted for the present research. The experimental group that performed the "thinking together approach", used tasks such as, reasoning, sharing of information, accepting of challenges and coming to an agreement together with the group. All these tasks were developed to encourage exploratory talk of the children. This approach was found to promote cognitive high level thinking in the experimental group of 6 to 7 year old children, over 1 year. The results showed an increase in participation from children as well as an increase in the number of children participating during group tasks. The quality of their discussions, were also improved, as a result of the intervention programme.

In the above research it not only indicates how widespread the effects of storybook reading are, but also shows the positive effects that certain tasks such a exploratory talk have in providing cognitive high level thinking.

It is evident that the types of interactions and challenges directed to the children during storybook reading have a large impact on the effect of the activity and on learning outcomes. The effect of the reading style of the teacher, how the teacher uses the storybook activity to teach concepts and encourage participation is paramount in determining learning outcomes.

2.4 Adult influences on storybook presentation reading styles

Adults' presentation styles are of paramount importance in determining effects of storybook reading on children's learning (Elley, 1989; Senechal, Thomas & Monker, 1995; Whitehurst et al, 1994). The way adults interact during story reading is most important in shaping children's involvement (Kaderavek & Sulzby, 1998) and engaging them in the storybook reading activity (Elley, 1989; Senechal, Thomas & Monker, 1995; Whitehurst et al, 1994). Reading styles thus cannot be equated to pure verbatim reading of text, but rather need to be used as a teaching technique.

The social-constructionist nature of early literacy experiences, suggests that through mediation, children internalise higher mental functions (Iturrondo & Velez Vega, 2007). From this, one can surmise that children can internalise language and cognitive high level thinking, as these are both seen as higher mental function, using social interactions (storybook reading) with a more competent adult (Iturrondo & Velez Vega, 2007; Kadervek & Sulzby, 1998). Shared storybook reading according to Vygotsky's theoretical framework (Velez Vega, 2007), offers not only social but also contextual support for the development of language. This means that through mediation or shared storybook reading the adult not only socially guides the child but also provides perspective and a context in which to develop their language.

Kaderavek and Sulzby (1998) suggest that adults therefore have the ability to modify the language of storybook text in response to the child's level and thereby achieve more sophisticated levels of comprehension and linguistic performance. Crain-Thoreson (1999) is in agreement with the statement as he found that teaching though storybook reading provides a time of joint attentional focus, which allows for more complex language use than in other contexts. This emphasises the importance of the reading style that teachers employ during reading sessions.

2.5 Effects of different ways of presenting stories

Various studies have attempted to link child outcomes to the way story reading is conducted by the adult. Some studies have described storybook presentations on a macro

level (identifying reading styles and broad interactional patterns) while others have analysed storybook presentations on an utterance level, that is, on a micro level (Dickinson & Smith, 1994).

Senechal, Thomas and Monker (1995) investigated how different reading styles effect the learning that takes place. They used two reading styles, a passive, verbatim reading style and a more interactive style involving questions from the teacher requiring children to label target words. The results of this study indicated a 10% -12% to 11-15% increase in target word comprehension and production respectively for those in the labelling condition. One could, however criticise this study by saying that the experimental group possibly benefited from the intervention through the increased focus on the target words. To control for this potential error, Senechal, Thomas and Monker (1995) conducted a second research study which contained three conditions with each condition hearing each target word twice. The first condition being a verbatim reading procedure repeating the sentences containing the target words, condition two requiring children to point at target word illustrations i.e. non-verbal practice and the third condition, a labelling condition as in the first study. The results showed that children actively participating i.e. pointing and labelling conditions, gained far more comprehension and production vocabulary.

Jiminez, Filippini and Gerber (2006) taught their experimental group a number of dialogic reading strategies, namely: making connections between the book and child's experiences, praising and encouraging, questioning, expressions, making predictions and defining or clarifying new vocabulary. Adults were observed before and after the training using a video recording during natural storybook reading with their preschool children and were found to have increased the amount of strategies used during reading. Children in the study performed better on post-testing with respect to number and length of utterances and word types used. This study also confirmed the benefit of diverse exchanges as part of the book reading routine.

In a research study done by Lim and Cole (2002) the experimental group were taught similar reading techniques to the study of Jiminez, Filippini and Gerber (2006) by focusing on four target behaviours, namely commenting and waiting, asking questions and waiting, following the child's lead and responding to the child by adding to their

utterances with more advanced language. These techniques were implemented by the adults in storybook reading with preschool children, they however, seemed to experience various difficulties in using the different strategies. They for example, struggled with the commenting technique with virtually no implementation thereof. Questioning and expanding on children's utterances seemed to be the easiest to implement and were therefore also used most often. The implementation of these reading techniques also increased the number of the children's utterances and number of unique words used. This study illuminated existing data by highlighting the difficulties teachers might experience during different types of exchanges as part of storybook reading routines.

Perhaps the most extensive study on teacher behaviour during storybook reading was done by Dickinson and Smith (1994). This study was done with 25 teachers, who were video recorded in their natural situations. A thorough evaluation and coding of their reading styles was then done into three levels. This provided the researchers with information regarding; when during the storybook reading the most interactions were taking place and what type of interaction teachers were engaging in. Interactions were then also coded to indicate how cognitively challenging they were and what type of management the interaction created. The teachers were therefore coded with interactions that they were actually performing, without any training from the researchers.

Three different reading styles were identified, the co-constructive style, the didactic-interactional style and the performance-orientated style. In the co-constructive style, which was characterised by high amounts of talk by children and teachers, talk was highly analytic in nature with a very limited amount of talk before and after reading procedure. The didactic-interactional style was characterised by limited amounts of talk around the book with most interactions being immediate recall or task organisations. This style tended to be influenced by a concern for classroom management and had a large number of class-chiming and group actions to involve disruptive children. The performance-orientated style mainly contained before and after talk and very little talk during the actual storybook reading. Most of the talk was analytical in nature and task organisation during talk was rare. The major characteristic of this style is the extended nature of the book introduction with character discussions, prediction encouragement, providing personal connections or analysing vocabulary.

After categorising the classrooms into the three reading styles, they related these styles to the results of the Peabody Picture Vocabulary Test - Revised (PPVT-R). These results showed children in the performance-orientated classrooms performing better on the PPVT-R, which measures the receptive vocabulary of a child, than those in the didactic-interactional classrooms. Children who were in classrooms which engaged in a large amount of analytical talk out performed those with little analytical talk.

This research by Dickinson and Smith (1994) motivated the present study as there are very few other studies that observe teaching styles in their natural situation. Most other studies tended to enter the adult-child reading interaction with set procedures in mind that require testing (Lonigan & Whitehurst, 1998; Senechal & Cornell, 1993; Whitehurst et al, 1994). The non-invasive observation of teachers may in actual fact provide valuable information as to current reading styles prevalent in preschool classrooms and their potential impact on the development of thinking skills in children.

2.6 Situational background

Most of the studies mentioned on the effects of storybook reading, were studies that used participants from western cultures that had a literacy-focused orientation. The "before school" literacy skills that children acquire, depends on their cultural environment and family environment. Children learn pre-literacy skills such as problem solving, assertiveness, methods of speaking, etc through socialization with adults (Heath 1989). This socialization is therefore dependant on the adults, their culture and therefore the pre-literacy skills learnt in a literacy orientated home will differ from the skills learnt in an orally orientated home.

Traditionally the Zulu culture in Ingwavuma was seen as an oral culture, where traditions were passed on from adult to child by means of stories and participation in community interaction. It is suggested by Heath (1998) that traditional patterns of rural life where children spend a considerable amount of outdoor public time, ensured that youngsters participate in a great variety of oral language performances.

This pattern is unfortunately changing in Ingwavuma, which is still a rural community, with a very low literacy rate and therefore unable to move into a literacy orientated

culture but is also not maintaining its oral traditions. This transition may have been created by a number of different effects, such as young adults going to the cities to find work and leaving their children with the grandparents. HIV/aids has also changed the social structure with numerous child headed homes or children having to care for dying parents and siblings. This, along with the general hardship of such a rural community just intensifies the problems and allows less time for socialisation or the transfer of oral language.

Heath (1998) indicates how traditional patterns of rural life, allow children to inherit methods of group involvement in oral decision making, such as persistence, assertive problem-solving and adaptability in role-playing. Group or community meetings in Ingwavuma are exclusive adult gatherings, often with only the head of the household present.

Adult-child relationships tend towards the giving of commands to do work, for those that are old enough to work. The younger children are often sent with the older ones and the very young children are tied onto their caregivers back, with very little interaction. A child in this community is expected to do most of the household chores, such as fetching water, fetching the cattle, cooking, washing etc on their own or with other young children. The children often take some time to play together while waiting at the water pumps, but this provides child to child interaction not adult to child. Adults do not go out and share these chores with their children. Even during meal times, adults and children are mostly separated in eating time as well as place.

It is for the above reasons that adult-child shared activities in the rural Zulu culture are rarely found and therefore it is assumed that very little adult-child socialisation will in turn have an effect on their pre-literacy skills before they arrive in Grade R. It is therefore vitally important that they receive as much intervention as possible when they first arrive at school.

When investigating the significance that cognitively high level thinking skills have, in the child's later education and also in later life, the importance of developing these skills as soon as possible needs to be examined. However, cognitive high level thinking skills in

the young child do not develop in isolation and are theorised to be developed in conjunction with oral and emergent literacy skills.

These oral skills, emergent literacy skills and cognitive high level thinking skills, may be developed though numerous mediums and methods. This study investigates the use of storybook reading as a medium of intervention. Storybook reading will therefore be assessed for the potential to develop all the skills needed to work towards the acquisition of cognitive high level thinking skills and the methods in which these skills can be transferred to Grade R children.

2.7 Conclusion

In conclusion, it is generally accepted that storybook reading for young children is beneficial (Elley, 1989; Kaderavek & Sulzby, 1998; Senechal, Thomas & Monker, 1995; Strickland, Morrow, Feitelson & Iraqi, 1990) with the specific, researched effects being gains in emergent literacy (Whitehurst et al, 1994), gains in expressive and receptive vocabulary (Elley, 1989; Lonigan & Whitehurst, 1998; Senechal, Thomas & Monker, 1995), and an increase in the length of utterances and more cohesive storytelling (Strickland**,** Morrow, Feitelson & Iraqi, 1990). These effects are important, as it shows that children are able to gain information through incidental learning when guided in the correct way, without drilling them with the new information.

These effects are however, closely linked to the reading styles that adults use. The reading styles are as many as there are research articles and are used in all types of different combinations. However, active engagement of children (Elley, 1989; Senechal, Thomas & Monker, 1995; Whitehurst et al, 1994), using analytical talk and decontextualising the story (Dickinson & Smith, 1994) are some techniques that generally promote learning.

The studies described in this chapter show the different gains, effects and styles but very few studies observe reading styles in their natural setting. Dickinson and Smith (1994), Prinsloo and Stein (2004) and Whitehurst et al (1994) carried out studies observing interaction styles, with Dickinson and Smith (1994) being the only study of those mentioned, that performed an in depth quantitative research. A study carrying out

quantitative research in a rural South African context was not found during the literacy review.

It is not certain that all teachers read to their children or that book reading interactions always proceed in the same manner even within a given cultural group (Heath, 1980). There was also no literature found on the teacher interactions within a rural Zulu culture.

The purpose of this research study is therefore to focus on the method of storybook presentation that teachers in a rural part of South Africa employ and how or if these methods change during the three recording sessions.

2.8 Summary

This chapter explores the literature that led to the present research study. The chapter started by investigating the theoretical framework on which the study rests, such as the routines used in early learning classrooms, the impact on expressive language use and development of cognitively high thinking with storybook reading. It then explores the different reading styles and their effects. All these aspects are then rounded up in a conclusion.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This section explains the aims of the study, the way in which the participants were selected and what materials, equipments and procedures were used. It also explains the research design chosen and concludes with an overview of the data analysis that was done after the completion of the field work.

3.2 Aims

3.2.1 Main Aim

To describe how teachers interact during storybook reading with Grade R children.

3.2.2 Sub-aims

In order to address the main aim of the research study, three sub aims were formulated, namely:

i. To describe the cognitive levels of utterances used by teachers.
ii. To describe the types of utterances used during storybook reading.
iii. To differentiate the cognitive levels and types of utterances used in terms of before, during and after reading procedure.

3.3 Research design and Phases

3.3.1 Research design

A quantitative descriptive observational design was used for a small group (McMillan & Schumacher, 2001).

3.3.2 Phases of Research

The two main research phases are presented schematically in Figure 3.1.

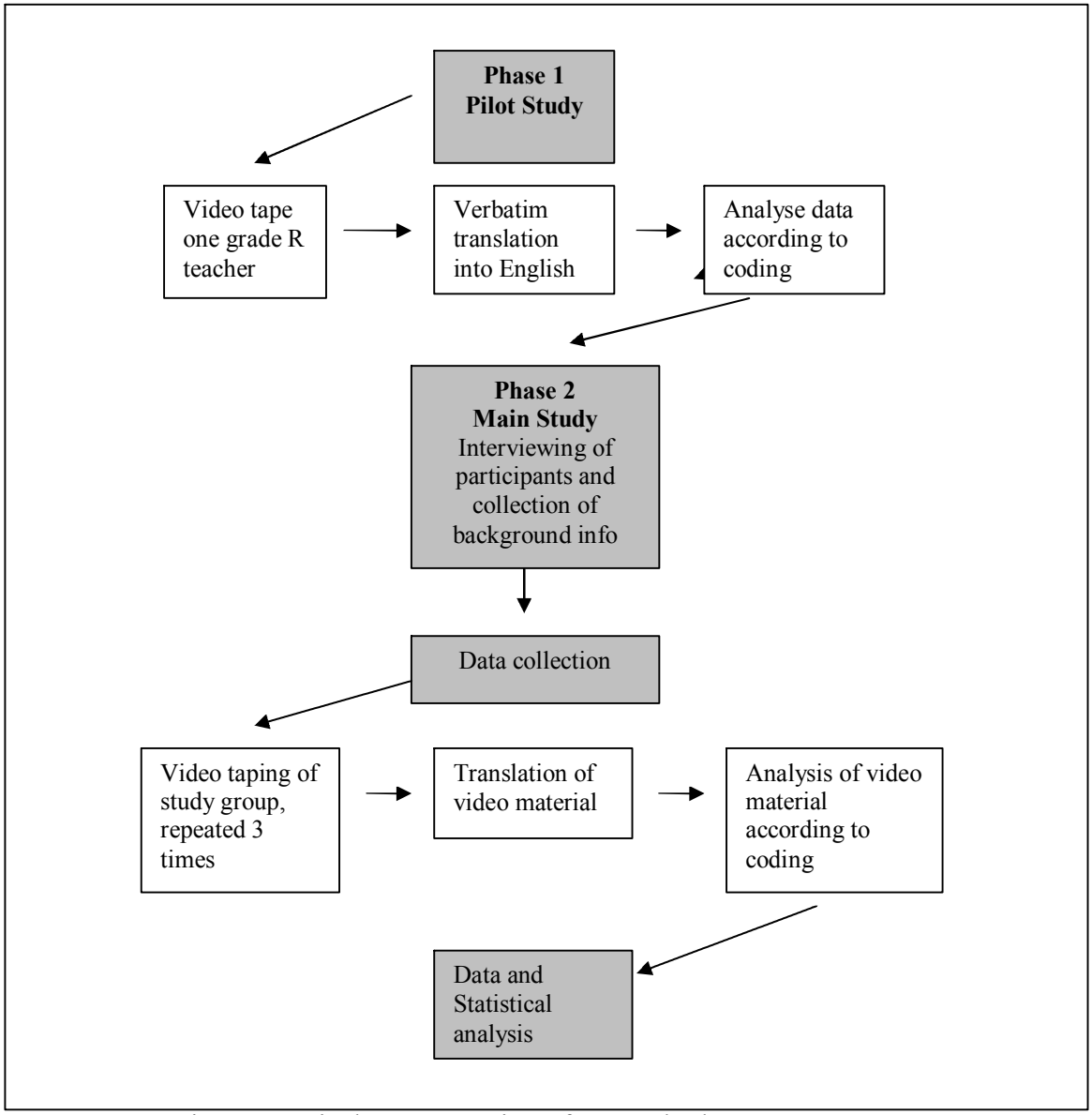

Figure 3.1. Diagrammatical representation of research phases.

Figure 3.1 shows that the pilot study (phase 1) was comprised of a video recording, the translation process as well as the coding of the utterances. The pilot study indicated that some adjustments needed to take place (see Table 3.2) and that all procedures and equipment were functioning satisfactorily. This meant that the pilot study did not have to be repeated and therefore the main study was able to commence. The main study (phase 2), started with the interviewing of participants, in order to gather background information. This was followed by the video recording of the teachers during storybook reading, which was done in the same way as in the pilot

study. This section was, however, a recording of five teachers, and was repeated three times. After the video recording, the information was translated and then coded. The final section was used to compile all the information received through data and statistical analysis. This information was then used to write the final Masters Thesis.

3.4 Pilot study (Phase 1)

3.4.1 Main aim of the pilot study

The main aim of the pilot study was to ensure that the procedure was practical, that the measuring tool was appropriate and that the data received would be able to answer the research question.

3.4.2 Sub-aims of pilot study

In order to address the main aim of the research study 4 sub aims were formulated, namely:

i. To test the applicability of the following measuring instruments: Background guideline, coding chart and participation observation chart
ii. To test the relevance of the storybook.
iii. To test the data collection procedures: Recording procedure, translation procedure and coding procedure.
iv. To ensure that the analysis, interpretation and presentation of preliminary results was done correctly.

3.4.3 Participants of the pilot study

One teacher was chosen from the Ingwavuma area for the pilot study. This teacher had to comply with the selection criteria for the main study (see section 3.5.3) and was also then automatically excluded from the main study.

3.4.4 Participant information:

Table 3.1 indicates the information that was collected from the pilot participant in order to be able to describe the context. This information was the same as information that was later collected from the participants in the main study.

Table 3.1

Background information from pilot teacher

	Pilot teacher
Number of books in the classroom	20 to 30
Frequency of reading sessions	Once a day
Size of reading group	Whole class
Number of years of teaching experience	5 years
Number of years teaching Grade R	5 years
Qualification	Grade 12
Number of years teaching post qualification	N/A
Number of children in the classroom	32

3.4.5 Setting

The video recording took place in the teacher's classroom, in the area that is usually used for story reading. The procedure attempted to ensure that the setting remained as natural as possible and was repeated in the main study.

3.4.6 Procedure

The procedure that was used remained the same as the procedure in the main study (see section 3.5.7).

3.4.7 Results from the pilot study and recommendations made

Table 3.2 provides a summary of the result found through the pilot study and the recommendations that were made for the main study. From the table below it is clear that the pilot study served to clarify minor details in the procedures and resources used. These recommendations were then implemented for the main study.

Table 3.2

Pilot study

Aim	Results	Recommendations
Testing of the following measuring instruments		
Background guideline (see Appendix A)	Some background information was not relevant.	Background information that is recommended to be removed for the main study: • Age • Prior experience in a different field • Why do they read books to the children? • Do they think that storybook reading has any importance to the learning process? If yes what is this importance? • How long have you taught in this school? • Any own children (Ages): • Do they read to their own children? • How do they feel about storybook reading on a scale (1-5): 1: I don't enjoy storybook reading at all 2: I slightly dislike storybook reading 3: It doesn't make a difference to me 4: It is nice to read storybooks 5: I really like to read storybooks
Coding chart (see Appendix B and Appendix I)	The two coding charts used were found to be repetitive and ineffective.	The coding from Dickinson and Smith (1994) and Blooms taxonomy (Krathwohl, 2002) should be merged into one coding chart with different sections.
Participant observation chart (See Appendix C)	This chart worked well and extracted all information needed.	No changes to be made
Testing of the following resources:		
Storybook	The storybook used was relevant to the situation, and allowed questions to be asked on all levels of Blooms taxonomy	No changes to be made, the same book will be used in the main study.
Translator	The translator used for the pilot study translated accurately and well.	No changes to be made

Aim	Results	Recommendations
Testing of the following procedures		
Video camera recording (Sound quality)	Sound quality of teachers voice throughout reading session is good and easily understandable	No changes to be made to the procedure
Intrusiveness of the recording procedure	The recording procedure was not intrusive and did not change the teachers reading style, as her reading style remained the same with or without video recording equipment.	No changes to be made to the procedure
Camera position (behind the children and in front of the teacher)	The camera position worked well to record the teacher's voice optimally and create minimal disturbance for the children.	No changes to be made to the procedure
Translation (Time taken)	Translation took too long when the entire session is translated verbatim.	Only verbatim translations of the relevant sections. Classroom management and requesting of attention by the teacher will not be translated at all. Reading sessions by teachers will not have to be translated verbatim but it will be indicated what the teachers is reading about.
Translation (Method)	Initially both translators worked together to translate on section – this method takes too much time	The primary translator will do the translation and the second translator will check 10% of the translations.
Interpretation of results		
Presentation of results	Presentation of results is not effective for calculations in a word document.	Results will be presented in an excel document so that they can easily be used in calculations are transformed into a format that is suitable for the statisticians.
Data analysis	The statistics department decided not to do a data analysis for the pilot study.	Data analysis will be done by the statistics department.

In conclusion it was found the most of the changes were minor changes that are explained in the table above. The only major change that took place was the modification of the coding system in order to make it less repetitive and more effective. Appendix B shows the revised coding system used in the main study and Appendix I shows the coding system used in the pilot study.

3.5 Main study (Phase 2)

3.5.1 Context Description

All participants are currently teaching Grade R in the Ingwavuma area. This is an area in northern KwaZulu Natal, which is classified as being rural. The area is still under tribal authority and has a high adult illiteracy rate. In 2001, more than a third of South Africans of 16 years and older were illiterate. KwaZulu-Natal Premier Sibusiso

Ndebele in March 2001 conservatively estimated that 22% of adults in KwaZulu-Natal have little or no formal schooling, leaving 1.7 million illiterate (Macfarlane, 2005).

3.5.2 Classroom description

All classrooms looked similar, with small tables and chairs for the children, a few posters on the wall and sometimes a carpet in the corner. The number of children in the classroom varied from 25 to 37, but this did not seem to make much of a difference to the teachers' teaching technique, as children were generally well behaved.

All teachers had a storybook corner, some with books on display, some with posters and others with a small shelf of books. The number of reading-books on display ranged from about 20 in two of the classrooms to about 40 in other classrooms. In one classroom it was evident that the teacher spent a lot of time reading to the children, as the children constantly came up to her to "read" their favorite stories.

Most teachers had a reading session once a day at the end of the day with the whole class. One teacher, who said she did not have enough books in her classroom, only read to the children once a week, where another teacher, who had the same number of books in her classroom read to the children twice a day. This teacher is the only one who read to the children in large groups as well as in small groups.

The teachers all used similar songs and activities to introduce storybook reading time to the children. These songs were used to focus their attention and settle them down before the start of storybook time.

Although teachers did things slightly differently, they all interacted with the children throughout the story and used the story to teach concepts. These teaching styles will be discussed in further detail in the results section.

3.5.3 Participants

A purposeful convenience sample of 5 teachers, from Grade R classes in the Ingwavuma area, who show an interest in the study, were used. This criterion was

selected for geographical convenience as well as with the assumption that teachers who showed an interest in the study would be more willing to participate.

A purposeful sample could distort the information received as it may not be an accurate representation of the entire population studied and therefore it will be difficult to generalise results (McMillan & Schumacher, 2001). The sample was however, chosen in this way to facilitate voluntary participation of participants and to aid in the ease of the sampling procedure. Although information is available for more developed contexts (Bedrosian, 1999; Ewers & Brownson, 1999; Light, Binger & Smith, 1994) the present study entered the rural context by firstly, describing the present situation and then recommending further studies.

Table 3.3 describes the criteria used to identify the population from which the participants were chosen, gives reasons for specific inclusion criteria and methods of selection in which these criteria were achieved.

Table 3.3

Participant selection criteria

Inclusion criteria	Reason	Method
Participant teaches in the Ingwavuma region	This is the population that the study focuses on due to the reasons described in 3.5.3 above.	School names were selected from the Ingwavuma department of education list.
Participant is teaching Grade R in 2007	This is the study group chosen by the researcher as it is the first contact children have with formal education and as is stated in Pierce & McWilliam (1993) the first five years of life are of great importance to later school achievement.	Only teachers teaching Grade R in 2007 were selected.
Teachers teaching in isiZulu	The storybook given will be in isiZulu and the study is trying to describe the natural method in which teachers in this area perform storybook reading	Teachers were asked before the video recording session if they usually teach in isiZulu

3.5.3.1 Descriptive criteria

Table 3.4 presents a description of the 5 teachers that participated in the main study, in terms of their genders, teaching experience and qualifications.

Table 3.4

Description of participants

	Teacher 1	**Teacher 2**	**Teacher 3**	**Teacher 4**	**Teacher 5**
Gender	Female	Female	Female	Female	Female
Number of years experience	10.5 years	11 years	9. 5 years	4.5 years	4.5 years
Number of years teaching Grade R	10.5 years	11 years	9 years	4.5 years	4.5 years
Qualification	2 year diploma	2 year diploma	2 year diploma	No qualification	No qualification
Number of years teaching post qualification	8.5 years	2 years	7.5 years	N/A	N/A
Special needs courses	None	None	None	None	None

It is seen in Table 3.4 that there is a range of number of years experience in teaching Grade R from 4,5 years (Teacher 4 & 5) to 11 years (Teacher 2). Teachers 4 and 5 have the least number of years experience and both have no qualifications. Teachers 1, 2 and 3 all have a 2 year diploma in teaching. The number of years post qualification range from 2 years for Teacher 2 to 8.5 years for Teacher 1. None of the teachers have done any special needs education courses.

3.5.4 Materials used

The materials and measuring instruments were designed to answer the research question, provide background information of participants, their situations and guide choice of the storybook.

3.5.4.1 Participant background information guideline

Table 3.5 is the guideline that was used during the first interview, in order to gather uniform background information from the participants. It served only, as a guideline for the interview and was not filled in by the teachers, but rather by the researcher. An explanation and categorisation of these questions can be found in Appendix A.

Table 3.5

Background information guideline

Name:
Years of experience post qualification:
Years of experience in Grade R:
Type of qualification:
Special needs courses or training :
Prior experience in a different field:
How long have you taught in this school:
What time of day does storybook reading take place?
The frequency of storybook reading in the classroom:

3.5.4.2 Participant observation grid

An observation grid presented in Table 3.6 was used as a guideline for the researcher during the video recording process, in order to gather descriptive data about the context and the teacher. A justification of the observations recorded can be found in Appendix C.

Table 3.6

Participant observation grid

Observation	**Description**
The number of children in the classroom?	
The positioning of the children with respect to the teacher during storybook reading?	
The amount of books available in the classrooms.	
Other observations made during data collection process	

3.5.4.3 Coding chart

Table 3.7 shows the coding chart that was used for coding the raw data from the transcripts.

Table 3.7
Coding chart (Light, Binger & Smith, 1994; Krathwohl, 2002; Allor & McCathren, 2003; Dickinson and Smith, 1994)

Section 1	**Talk before reading of text**	**Talk during reading of text**	**Talk after reading of text**
	Starts when the teacher starts talking about the book and ends when she reads the first line of text	Starts when teacher reads first line of text and ends when she completes speaking about the last line of text	Starts after the teacher finishes speaking about the last line of text and ends when conversation about the storybook ends.

Section 2	**Give information**	**Request information**	**Responsive**	**Chiming**
	Teacher provides information or focuses the children's attention through the use of a rhetorical question. Excludes text reading	Teacher requests information, waiting for at least three seconds for a child's response.	Responding to the previous utterance of the child.	Chiming or encouraging chiming of familiar words/sentences. At least one word is repeated with the child.

Section 3	**Level 1 Remember**	**Level 2 Understand**	**Level 3 Apply**	**Level 4 Analyse**	**Level 5 Evaluate**	**Level 6 Create**
	Identification and labeling of physical aspects of book	Teacher explains vocabulary to class or requests vocabulary explanation from child	Prior information needed to respond to request	Ask child to analyse the sounds: segmenting and blending letters, sounds or words	Making judgments based on criteria and standards, checking, critiquing	Using the story as a background but creating something completely new
	Immediate recall	Probe children about understanding of story	Use information and apply immediately to request without any analysis	Use prior information, manipulating it to come up with a new aspect	Evaluating the situation and creating a point of view	
	Remember things such as numbers, colour, alphabet, by use of rhyme or song.	Recall of extended text, more than one sentence.	Use of prior info to predict upcoming events without analysis (repetitive events)	Asking children to explain the moral of the story or importance		
	Asks child to turn pages, lift flaps, indicate printed words (big/small, capitals/ small letters, indicate word boundaries, etc)	Provide understanding of story with explanation of events.	Asking the children to break up the story and sequence the steps			
		Correction or approval of children's utterances.				
		Guide children to relate the story to their own experiences (similarities/differences)				

This coding chart was developed as a result of the pilot study, as it was found that using two different coding procedures was not functional. The coding systems were therefore merged into one system.

The coding chart was used to classify each utterance of the teacher (transcribed from the recordings) according to time period (Section 1), type of interaction (Section 2) and cognitive level of the utterance (Section 3).

Section 1 of the coding chart was a replication of part of the coding procedure done by Dickinson and Smith (1994). This section is the time period in which the interaction takes place. The entire storybook reading session was divided into three time periods. The first was before the actual reading process starts, a preparatory phase. The second was during the reading process and the last was after the reading process, a summarising and recapping phase.

Dividing the interactions into sections allowed the researcher to identify the types of interactions that occur in each section and therefore create a more accurate reflection of the patterns of interaction that teachers use during storybook reading.

The second section was also modified from Dickinson and Smith (1994). This section indicated the type of interaction that was taking place. This information allowed the researcher to indicate what method the teacher was using to interact with the children. It indicated whether information was given to the children, requested from the children, a response was given to the children, or whether the teacher was chiming with the children. A rationale for the inclusion of each type can be found in Appendix B.

The third section was a categorisation of cognitive difficulty, on the factual level of Blooms Revised Taxonomy (Krathwohl, 2002). The factual level evaluates knowledge of terminology, specific details and elements. The level was chosen, as it is the most relevant for the study and the coding procedures used by Light, Binger and Smith (1994) and Dickinson and Smith (1994) were also compatible to this level. The factual level was found most relevant as it deals with concepts that are relevant at a

Grade R. The other levels deal with conceptual knowledge, procedural knowledge and metacognitive knowledge and were not found to be relevant for the study.

Codes developed by Light, Binger and Smith (1994) and descriptions developed by Allor and McCathren (2003) for storybook learning interactions were incorporated into this categorisation system to develop a coding system that could be used to code the different levels of Bloom's Taxonomy (see Appendix I, Table C). Blooms Revised Taxonomy (Krathwohl, 2002), was used as a basis for the coding system and the descriptions from the above two articles were then slotted into the sections according to the definition of each section, as given by Krathwohl (2002).

Interactions that were not specified in this coding system, were discussed between the researcher and the second rater with the use of the pilot data, in order to find an appropriate category. This was done in order to ensure a complete system before the actual coding took place. These utterance types were then inserted into the coding system for future reference. A complete rationale of each code can be found in Appendix B. An independent inter-rater coding of 10% of the utterances was then done after the coding system was complete (see section 3.5.9).

3.5.4.4 Storybook

The storybook used was called "Usikhukhukazi Obomvu" (Translation – "The red hen") (Bikitsha & Masuku, 2005). The following criteria were used to evaluate the storybook chosen and to ensure that the book would be applicable to the context and the study.

i. The storybook was assessed to ensure that the book had potential for interactive communication, thereby ensuring that the participants have the ability to ask question on all levels of the taxonomy.
ii. The book is written in isiZulu, as this is the language that the children are taught in.
iii. The book has developmentally appropriate language for Grade R children.
iv. The context of the book is such that rural children can easily associate with it.

3.5.5 Equipment

- Video camera: Panasonic NV-GS27
- Personal Computer 1.6 GHz CPU, 256 Mb RAM
- Operating system: Microsoft Windows XP, version 2002
- Microsoft office XP, version 2002
- Arcsoft video impression 2 editing software

3.5.6 Ethical Considerations

The methodology and the study were approved by the University of Pretoria's ethical committee on 30th March 2007. The letter of approval is attached in Appendix E.

3.5.7 Data collection procedure

3.5.7.1 General procedures

Permission was requested from the Department of Education KwaZulu Natal, in January 2007, at the circuit office, to do the research project. This was done through a letter explaining the study and requesting permission, with the research proposal attached (see Appendix D). A signed reply approving the research project was received from the circuit manager.

Schools for the main study were selected from a list of schools at the circuit office. Schools in the closest geographical location were approached first.

School principles and Grade R teachers were approached in March 2007, for permission to do the data collection and video recording (see Appendix F and G). Signed letters of consent were received from all school principals and teachers participating in the study.

A research proposal was handed in to the University of Pretoria's Ethics committee for approval of the research study. The approval from the Ethics committee was received on the 30th March 2007 (Appendix E).

The pilot study was conducted on the 26th April 2007 (see section 3.4)

Participants for the main study were then met individually at the beginning of May, to:

- Provide an understanding of the project and its procedure.
- Collect background information
- Inform participants of the confidentiality of the information and material received
- Set dates and times for individual recording sessions.

During this time the background information guideline (section 3.5.4.1) was used by the researcher to gather background information from participants.

3.5.7.2 Data recording

All video recordings took place during May 2007. The researcher went to the individual schools, during or as close to the usual storybook reading time of the class.

The teachers were asked to arrange the children as is usually done during storybook reading time, in order to maintain a natural setting. Once the children were arranged the video camera was set up behind the children, facing the teacher.

The video recordings were made by the researcher, while the teacher was performing storybook reading with the book chosen by the researcher. This book was given to the teacher shortly before the storybook reading session.

Time was allowed before the start of the story in order to allow the children to settle down and for the teacher to get used to the camera. This time was characterised by some singing and games before the start of the story.

The entire storybook reading session was recorded, from the moment when the teacher started speaking about the book until the teacher ended the session.

On completion of each session the teacher was asked if this was an accurate reflection of how the storybook reading usually takes place in the classroom, to ensure that the session was as close to what naturally occurred, in the classroom, as possible.

This procedure was repeated three times, once a week with each teacher. The storybook sessions were recorded using the same book throughout all three sessions.

All video recordings were down loaded onto a computer and edited to ensure that only the storybook reading session was coded and to exclude any excess recording, which was not relevant to the study. The entire storybook reading session was retained for coding, and only irrelevant information that was recorded before or after the storybook session was removed.
Table 3.8 indicates the dates on which each recording session took place and how long each session took. The times indicated refer to the recording times after editing.

Table 3.8

Recording sessions

Date **Recording time (minutes)**	**Session 1**	**Session 2**	**Session 3**
Teacher 1	9 May 2007 14min 46s	16 May 2007 16min 42s	30 May 2007 10min 18s
Teacher 2	9 May 2007 14min 50s	16 May 2007 22min	30 May 2007 18min 7s
Teacher 3	11 May 2007 12min 40s	18 May 2007 11min 49s	25 May 2007 15min 43s
Teacher 4	15 May 2007 10min 50s	22 May 2007 12min 37s	29 May 2007 9min 53s
Teacher 5	15 May 2007 16min 17s	22 May 2007 13min 50s	29 May 2007 16min 48s

3.5.7.3 Data translation

The translator used in this study was a past pupil from a nearby school, who had grown up in the area and therefore understood the local dialect and has excellent English language skills. She passed her grade 12 exam in 2005 and her subjects included Zulu first language and English first language, which she both passed.

The video recordings were then given to the translator, who viewed them and translated the spoken interaction from the video (which was in Zulu) into English. The translator was instructed to only translate the actual storybook interactions verbatim.

Utterances relating to classroom management and requesting of attention by the teacher from the children were not translated at all. The actual reading of the book was not translated verbatim but it was indicated what the teacher was reading about.

10% of the recordings were inter-rated by the researcher who is also fluent in the language, to ensure that the translations were accurate. The researcher independently translated one and a half of the recordings and compared them to the translations done by the translator. These translations were all found to be accurate, with no differences in the actual content and therefore the researcher was able to proceed to the next step.

3.5.8 Analysis of data

3.5.8.1 Descriptive information

The information from the participant information guideline and the observation grids were used to tabulate the descriptive information collected, describe the context and provide an understanding of the situation.

3.5.8.2 Coding of utterances

The researcher typed each utterance (defined in section 1.2.14) into an excel spreadsheet and coded the teachers' utterances according to the three sections of the coding chart. These utterances were analysed using the written translations as well as the concurrent viewing of the video material. An example of this coding process can be found under the coding chart in Appendix B.

All codes in Table 3.7 were mutually exclusive and therefore an utterance was only given one code within each section of the chart. For further clarification a short transcript is included in Appendix B.

This information was then used to analyse and describe the teachers reading styles.

3.5.9 Reliability

As a measure of inter-rater reliability, 10% of the total utterances were coded by a second independent rater. The second rater was an English speaking teacher who had

worked through all the literature with the researcher and was familiar with the system before coding.

The Kappa measure of reliability test was used to identify whether the coding procedure was reliable. It was found that the reliability in all three sections was above 0.75 (see Table 3.9) and therefore the coding procedure is said to be reliable (BMDP Statistical Software manual, 1992).

Table 3.9

Kappa coefficient of reliability

Section	Kappa coefficient	Reliability
Section 1	**1.00**	**Reliable**
Section 2	**0.91**	**Reliable**
Section 3	**0.86**	**Reliable**

3.5.10 Statistical analysis

Statistical analysis was then done to provide a summary of the data and visual presentation through statistical tables and integrative diagrams. Due to the nature of the research design, descriptive statistics were implemented to analyse and describe the data obtained from the video recordings. Frequency distributions and percentages were represented graphically in bar charts and statistical tables.

According to Hibkle, Wiersma and Jurs (1982), frequency distribution offers the researcher insight into and understanding of, the nature of the data although it does not disclose the meaning that can be derived from the data. Following the analysis of data in frequency tables, correlation statistics were conducted where appropriate, to identify the strength of the correlation between the sets of data obtained. For these purposes the Chi-square test was used.

This data was then used to draw conclusions and substantiate observations of teaching styles found during video recordings, which was then used to answer the research question.

3.5.11 Summary

The preceding chapter described the methodology of this research project. The aims and sub-aims of the study were presented, followed by a description of the research design, including a diagrammatically representation. Participation selection, with context descriptions, selection criteria, sampling methods and description criteria followed. In the equipment and material section, materials such as the coding chart, storybook and participation observation grid were described. This was followed by ethical considerations, pilot study results, procedures and data analysis procedures.

These procedures were used as the foundation of the next chapter, where the data was analysed.

CHAPTER 4: RESULTS AND DISCUSSION

4.1 Introduction

This chapter will discuss the results of the study in order to answer the research question and sub-aims. This will be done through the explanation of tables, representation of data in graphic forms and discussion of the observations made during data collection.

Figure 4.1 provides an overview of the chapter that is to follow

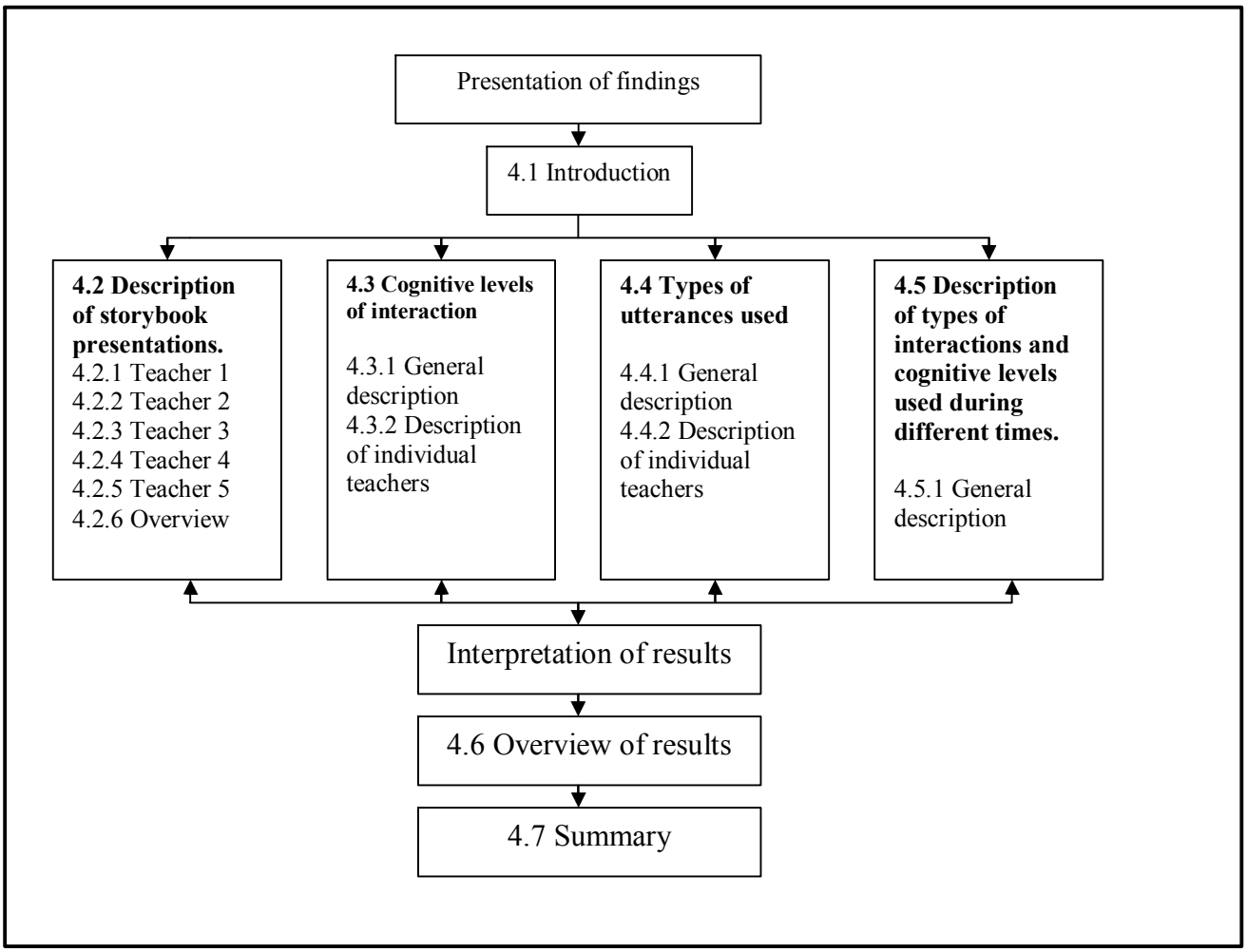

Figure 4.1. Visual representation of chapter 4's outline.

Section 4.2 will deal with the description of the individual teachers' story book presentations as was observed during the recording time. This section is an initial response to the main aim of the study (Chapter 3, Section 3.2.1), "To describe how teachers interact during storybook reading with Grade R children." The focus here is to describe general patterns of interaction

and reading during the story times observed, in order to obtain a holistic impression of the story reading times. Section 4.3 has been formulated to answer sub-aim one, "To describe the cognitive levels of utterances used by teachers" (Chapter 3, Section 3.2.2). Section 4.4 describes the type of interactions used during storybook reading, which answers the second sub-aim (Chapter 3, Section 3.2.2). Section 4.5 describes cognitive levels of interactions and types of interactions in terms of the time period in which they occur, which answers the final sub-aim, number 3 (Chapter 3, Section 3.2.2). These three sections will thus report data obtained from analyses on utterance level.

4.2 Description of teachers' story book presentations

It is important to note that this study was only done with 5 participants, which means that it is difficult to generalise and therefore the data will mainly be used to describe individual teachers' story book presentations and, specifically, the type of utterance and cognitive levels used.

The five teachers that participated in the study structured the story time in a variety of ways, and it is therefore important to provide some description of each teacher's presentation as a basis for the interpretation of the data that is to follow. Every section will therefore start with a general indication of each teacher's teaching context, resources available and will then move on to a description of the storybook reading procedure and the observations made during that time.

Table 4.1 provides a comparison of a number of aspects that were either observed in the teacher's classrooms or that were taken from the initial interview with the teachers. These aspects are tabulated for easy reference but will also be discussed in the sections below. The sections highlighted with a grey background, are those that were found to be of specific relevance to the discussion.

Table 4.1

Teacher variables

	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5
Number of books	10 to 20	30 to 40	30 to 40	10 to 20	30 to 40
Frequency of reading sessions	Once a day	Twice a day	Once a day	Once a day	Once a week
Size of reading group	Whole class	Whole class & small groups	Whole class	Whole class	Whole class
Number of years experience	10.5 years	11 years	9. 5 years	4.5 years	4.5 years
Number of years teaching Grade R	10.5 years	11 years	9 years	4.5 years	4.5 years
Qualification	2 year diploma	2 year diploma	2 year diploma	No qualification	No qualification
Number of years teaching post qualification	8.5 years	2 years	7.5 years	N/A	N/A
Number of children in the classroom	35	33	32	25	25

4.2.1 Teacher 1

This teacher had a reading session with her children every afternoon and had between 10 and 20 books in her classroom with some books on display in the reading corner.

Over the three sessions, Teacher 1 generally interacted in a book-focused way during the storybook reading time through utterances that were centred around the storyline. She remained in control of all interactions. The teacher asked questions, provided information and the children responded. The teacher sometimes acted out certain small parts of the story for clarification but no child involvement was requested. This teacher set the scene very well for the prediction question at the end of the story and asked children to think before they spoke, in order to encourage some analytical thinking. Please refer to Appendix H for an account of the story ("The red hen") that this comment and the following example refer to.

Teacher 1 reading
(See full text of the storybook in Appendix H, the teacher is reading line 12 of the story)

Teacher reading the story: When the pumpkin porridge was ready the hen asked, "Who will help me to eat the pumpkin and mealie porridge?"

She then asked the children to predict what they thought the goat, the dog and the pig would do. Realising that this was not effective, she modeled a pattern of thinking, as is suggested by Cotton (1991) as a method of encouraging cognitive high level thinking.

An example of Teacher 1 modeling a pattern of thinking

Teacher to class: Listen carefully.

Teacher paraphrasing the story: The mealie pumpkin porridge is now ready it's dished, it's on the table.

Teacher reading the story: Then the hen asks, "Who will help me eat this mealie pumpkin porridge?"

Teacher to class: Guess what they said? I want you to think. Think, don't answer me yet. Imagine the food on the table. See it with your imaginary eyes on the table. It's placed nicely with a spoon, there is aromat and everything else. It's placed maybe with some juice on the side for when you are done eating, so you'll have something to drink.

Teacher paraphrasing the story: And then the hen asks, "Who will help me eat my mealie pumpkin porridge?"

Teacher requesting information from a child: What do you think they said, Amahle?

The above dialog is an extract of consecutive utterances that Teacher 1 used, without interruptions from the children. Through this dialog the teacher used the twist in the story to set up a prediction question for the children, thereby encouraging cognitive high level thinking.

The class, however did not seem used to this kind of question as they really struggled with providing the answer. The children seemed to be more used to repetition and immediate recall type of interactions. Teacher 1 also reported that she was bored with the book after the first reading session and it did not seem as though she saw the need to do repetitive readings in her normal reading routines. She, however, did complete the three repeated session for the purpose of the study.

4.2.2 Teacher 2

Teacher 2 read to the whole class regularly at the end of every day but also included other reading sessions with the children during the day i.e. the children were read to twice a day. These sessions were conducted with smaller groups of children who were then encouraged to "read" their favourite stories to the teacher. This technique of reading to the class as a whole, as well as reading to individual children is suggested to be an excellent method of increasing the magnitude of positive effects that storybook reading has to offer (Otaiba, 2004). It not only provides children with individual attention, where the teacher can adapt the interaction to suit each child, but also allows children to see the book while the teacher is reading and therefore

increase the number of print concepts that they learn from the interaction (Otaiba, 2004). Although one can see the positive effects of the small group sessions, in the children's involvement and interest, they were not recorded and coded for the present study.

A reading corner was present in the classroom with 30 to 40 books on a small shelf and a few books on display.

During the first book reading session, Teacher 2 was very uncomfortable with the actual reading of the story and preferred to read the sentence quietly to herself and then retell that sentence in her own words. This interfered with the flow of the story in the first session, as the story came in bursts, after the teacher had read and understood it.

Two examples of Teacher 2 retelling the sentence in her own words

Example 1:

Teacher reading this text from the book quietly to herself: At the end of Summer the hen asks, "Who will help me harvest the mealies?" "No we are lazy!" said the goat, the dog and the pig.

Teacher' paraphrases to the class: "That's good, who will harvest my mealies? What did her friends say? No we can't go. We don't want to, we are lazy."

Example 2:

Teacher reading this text from the book quietly to herself : The hen asked, "Now all of you want to help, but I planted the mealies on my own. I watered, harvested, ground and cooked the pumpkin and mealie porridge alone."

Teacher' paraphrases to the class: They didn't help to plough, they don't help water, now they want to help eat, these people!

Through actual reading of a book, teachers model reading techniques, such as how to hold a book, using a reading voice, indicating that we read from left to right and top to bottom and so forth (Allor & McCathren, 2003). Although Teacher 2's method was not modeling the actual reading techniques, she used imagination, got the children involved in the story as they became the characters and made up rhymes and songs from the story, thereby using other presentation techniques to engage the children. Rhymes and songs according to Masney (1996) are a part of oral language that supports the development of emergent literacy. Allor and McCathren (2003) substantiate this and suggest that more specifically, this may be used to develop phonological

awareness. The clapping while chanting rhymes, walking to the rhythm, and so forth is the beginning of breaking up words into phonemes and leads into later manipulation of these phonemes (Allor & McCathren, 2003).

Three examples where Teacher 2 used rhymes and songs

Example 1:
Teacher asking class to start a rhyme : Let us say the rooster chicken
Class: Rooster chicken, kwek, kwek who laid the egg?.....

Example 2:
Teacher making up a rhyme and children following: Lets say…we have seen the lazy ones before.
Class: We have seen the lazy ones before

Example 3:
Teacher asking the children to start a song: Do you know that song that says at Nkulunga there is no lazy person?
Class: (sings song)

In the second and third session the teacher chose not to actually read the story but to tell the story with the children through role play and pictures. In the second session this teacher used the pictures from the book and allowed children to retell the story in sequence. This was then followed with role play, with the teacher as main character and the children as the other characters. In the third session the book was no longer used. The teacher used only a set of pictures that she had drawn herself to sequence and retell the story.

This use of symbolic role play as a method of retelling the story using pictures and objects, according to Masny (1996), is a method of developing literate behavior, and is substantiated by Vygotsky's theory (Iturrondo & Velez Vega, 2007). Vygotsky suggests that the development of symbolic thinking, oral language and literate behavior occur together and it is therefore assumed that encouraging the development of one will in turn affect the other.

This teacher and her children enjoyed the repetition of the story. The children seemed to enjoy immediate repetition type interactions but also responded well to analytical thinking.

4.2.3 Teacher 3

This classroom also had a reading corner with posters and books on display. The reading corner had a small book shelf with 30 to 40 books on it. Storybook time was held once a day with the entire class.

This teacher's storybook presentation, as observed during the three sessions, was child-controlled, allowing children to spontaneously ask questions, provide ideas, opinions and reasons for occurrences. She also used interactive techniques such as following the child's lead, following the child's responses with topic continuing questions, and expansion and recasts of children's utterances. The focus of attention was wider than just the book, and included the children's home situations. The teacher often asked open-ended questions and allowed numerous children to give their opinions while she responded appropriately to provide an understanding. This dialogic reading style (refer to Chapter 1, Section 1.2.5) described above, according to Crain-Thoreson and Dale (1999) is a method of encouraging oral language gain and allows the child to actively shape the activity, which also encourages learning according to Kaderavek and Sulzby (1998). Jiminez, Filippini and Gerber (2006) agree that a dialogic reading style is beneficial for oral language gain, as in their study, the participants produced an increase in the number and length of utterances and word types used after dialogic storybook reading.

An example of teacher 3 using some of the presentation techniques described above

Teacher asking a question: Let us hear if the hen gives them some food. Would you give them some?

Child responds and states that she would give the other animals some food.

Responding to the child: Halala says, he will give them some food.

Deeper questioning: Stand up and tell us why would you give them the mealies?

Child responds to say that he would give them some food because they would help him one day.

Responding to the child: You would give them because… one day they will help you.

Directing the question to the next child: Yes, why would you give them?

Child responds that he would rather not give them any food.

Responding to the child: Why wouldn't you give them?

Child responds by saying that they did not help.

Responding to the child: They didn't help her, yes.

Rephrasing the sentence for the class: He said that he wouldn't give them any food, because they didn't help her.

Child shouting out that he would give them some food.

Responding to this child: Why would you give them?

Child states that one day….

Responding to child and finishing child's sentence: One day, because they will also help….

Teacher adding to the discussion: ….but they are lazy.

Child shouting out the he would tell them to go away, as they are wanting something that is not theirs.

Teacher responding to another child: Yes, you would say, go away! You want something that is not yours.

This example also indicates how the teacher used structured controversy to create participation in the debate and asked the children to provide reasons to back their arguments. This, according to Klenz (1987) and Moschavaki & Meadows (2005a) develops children's thinking patterns, as they need to indicate a thought pattern which will substantiate their reasoning.

In Session 1, this teacher read the book to the children and interacted before, during and after. In Session 2 the children were given more freedom to tell each other what the story was about, as the teacher paged through the pictures. The story was then read towards the end of the Session to see if they had been correct. A similar procedure was followed in Session 3 with more focus on other things such as seasons, objects seen in pictures, and so forth, rather than just focusing on the story.

Teacher 3 decontextualised the story well throughout the three Sessions, to ensure that the children understood the concepts. This is a method of using oral language skills to support the acquisition of emergent literacy (Masny, 1996) and can be seen in the utterances recorded below.

Teacher 3 using decontextualised language

Requesting information and decontextualising information: At home what do we see our mothers do in summer?

Children respond with numerous answers.

Pointing to the picture: It's a stone for doing what?

The children answer that it is a grinding stone.

Decontextualising information: Do you have these at home?

The children all shout that they have them at home.

Decontextualising information: We grind what else here? What else do we grind at home?

The children state that they grind mealies.

Responding to a child: Mealies and what?

No response from the child.

Providing extra information: Peanuts, we usually grind peanuts to make soup. On the stone here we grind peanuts to do what? To make delicious soup. What do we put in the soup? Tomatoes or imfino.

Decontextualising information: Do you know the imfino with peanuts in it?

The children respond that they know what imfino and peanuts are.

Requesting information: What else do we grind?

A child answers that he grinds mealies.

Responding to the child: Mealies, we grind them.

Requesting decontextualised language: Do we grind wet mealies, or cooked ones or dry ones?

A child answers that one grinds dry mealies.

Responding to the child: Dry ones, yes.

In these utterances, Teacher 3 constantly refers to activities that are done at home, in order to create a discussion around a concept that is being addressed in the storybook. This ensures that children understand the concept and allows them to acquire oral language skills through the process of discussion. The children enjoyed these discussions and often requested the story be read again at the end of the session, which is also an important aspect of storybook reading, according to Kaderavek & Sulzby (1998).

In general Teacher 3 succeeded in maintaining the children's natural sense of curiosity and ensured that they feel comfortable asking questions and examining problems. The atmosphere in the classroom was open and positive, encouraging children to provide their own ideas. This according to Cotton (1991), Fisher (2007) and Jarema (2007) is the building block to encourage independent and cognitive high level thinking.

4.2.4 Teacher 4

In Teacher 4's classroom the small bookshelf with 10 to 20 books on it was covered and hidden away in one corner of the classroom. The area in front of the book shelf was used as the reading area and the children were read to regularly once a day.

Teacher 4 in general, over all three sessions, spoke very fast and struggled to provide time in which children could respond to questions or statements. This, according to Crain-Thoreson and Dale (1999) is a very important aspect when trying to encourage cognitive high level thinking. It is important to allow children time to think about and answer question. A waiting period, encouraging the children's participation, therefore also provides opportunities for children to practice their oral skills which then leads them to gains in oral language.

An example of Teacher 4's story presentation

Teacher paraphrasing the story: Hawu, one day the hen lived at her house, look (showing the picture).

Teacher paraphrasing the story: She lived with her friends, the pig, the dog and…

Teacher asking a question: And who else? Who else did she stay with at her house?

Teacher immediately answering her own question: She lived with the goat.

Teacher reading:. In spring the hen asks, "Who will help me plough for the mealies?"

"No we are lazy!" said the goat, the dog and the pig.

Teacher showing the picture and commenting: One day the hen…. There she is, do we all see her? There is the hen, she is calling them, the pig and the dog, asking them to come and plough but they said haai, no we are lazy.

The above example shows consecutive utterances used by Teacher 4, without allowing children time to respond. This indicates how Teacher 4 struggled to provide waiting periods and therefore answered her own questions. It also shows how the questions and comments were mainly book focused. All three of Teacher 4's sessions seemed to be quite similar, with the teacher controlling the interactions and most interactions being centered around the storyline of the book.

4.2.5 Teacher 5

This classroom had about 30 to 40 books in a bookshelf in the corner. The children in this classroom were extremely quiet and well disciplined. They waited quietly, listened to the story and only reacted when asked to do so. This teacher only read to the class once a week as she felt that she did not have enough books to read to the children more often.

Session 1 of the reading procedure was teacher-controlled and book-orientated. The children were mainly asked to indicate physical aspects of the book and chime sentences of the story together with the teacher throughout the reading procedure.

In Session 2, the teacher changed her style by starting off in the same manner as Session 1 but then at the end of the session the focus of control was given to the children. During this time the teacher facilitated re-telling of the story and sequencing. Later a group of children were called up to re-tell the story with puppets, using the pictures of the book as a guide. This method of practicing oral skills through re-telling stories from beginning to end supports the development of emergent literacy skills (Masny, 1996).

In Session 3 the teacher completely handed over the control to the children and only guided the interaction. Individual children had to pretend that they were the teacher and tell the story. The teacher then just facilitated the interaction by indicating when something was left out or providing cues as to what comes next. This session ended off with the teacher quickly reading the story to remind the children what it was all about.

An example of Teacher 5 guiding the children during story retelling

Teacher asking the children to retell the story: Tell me today and tell our friend what the story is about. What is talked about here? One person must stand up and tell us. Stand here and talk loudly. Look at our friend and tell her what is happening in the book. Greet the children so that they'll hear you.

The child greets the class.

Teacher prompts the child to start: Tell them, what does the story say? Who is the story about?

The child tells class who the story is about.

Teacher prompts: These people, they are what? They are…

Class responds by saying that they are lazy.

Teacher asks the child to continue: Uhum, continue.

Teacher guides the child with a question: Hawu, they are going to help her because what is happening?

The children in this classroom enjoyed the repetitive reading and were always eager to get involved with the story telling procedure.

4.2.6 Overview

In general, although all teachers used different ways and techniques to encourage learning through storybook reading, print awareness did not specifically feature in any of the sessions. This, according to Allor and McCathren (2003) would include aspects such as, showing children the difference between graphic display and words, showing them that print corresponds to speech word by word, understanding the function of the empty space in establishing word boundaries, understanding that one reads from left to right and top to bottom, etc.

Even though print concepts did not feature in the sessions, Teachers 2, 3, and at the end Teacher 5 very effectively used techniques which moved the focus of control to the children and allowed them to shape the interactions, thereby encouraging higher cognitively demanding activities (Moschovaki and Meadows, 2005b).

Some of the other interactive techniques used were; encouraging a positive climate in the classroom (specifically Teacher 3), modeling of a step by step thinking process (specifically Teacher 1), asking thought provoking questions, waiting for a reply, responding to the children and using structured controversy to encourage debates.

During these discussions it has become apparent that teachers used different techniques and methods to teach through storybook reading. The cognitive levels of these interactions are discussed in the next section.

4.3 Cognitive levels of utterances used

The teachers' utterances were coded in terms of cognitive levels (see Appendix B). Each utterance was given only one code in this section according to the level of cognitive involvement that it required from the children. These cognitive levels varied from Level 1,

which requires very little cognitive involvement to Level 6 which requires the highest level of cognitive involvement. The inter-rater reliability of this process was found to be 0.86, which indicates that the data is reliable. This information is tabulated and explained in chapter 3, Section 3.5.9.

The 6 levels were then split into 2 groups for easier evaluation. The first two levels, the recall knowledge (Level 1) and understanding (Level 2) were coded as cognitively low level interactions. Level 3 (application), Level 4 (analysis), Level 5 (evaluation) and Level 6 (creation) were grouped as high level cognitively challenging utterances. This split in the two groups was done, using as a guideline the groups that Dickinson & Smith (1994) included in their study.

4.3.1 General description

Table 4.2 provides an indication of the range of cognitive levels used by the different teachers, expressed in terms of the number of utterances per category in the top line and the percentage of utterances used per level, in the bottom line. The Sections that are of importance are highlighted with a gray background

Table 4.2

Comparison of cognitive levels of utterances expressed as an average of all teachers

Frequency (n) Row percentage %		**Low cognitive**	**High cognitive**	**Total Proportional %**
All teachers	**Session 1 %**	552 90%	56 10%	578 32.27%
	Session 2 %	597 91%	56 9%	653 36.46%
	Session 3 %	524 94%	26 6%	560 31.27%
Total Proportional %		1643 91.74%	148 8.26%	
Chi-square P-value	P= 0.1275*			

*Not significant on the 5% level

Table 4.2 indicates that there was no statistically significant relationship for all the teachers in the frequency ratio between the sessions and cognitive levels of utterance. It is however valuable to note the high frequency of low cognitively challenging utterances within each

session. The table clearly shows how the low cognitively challenging (Level 1 and 2) utterances are between 90% and 94% in all sessions.

In taking a closer look at the lower cognitive section it was noted that within the categorisation of lower cognitive utterances, teachers tended to concentrate on the first level, which is the immediate recall and memory level.

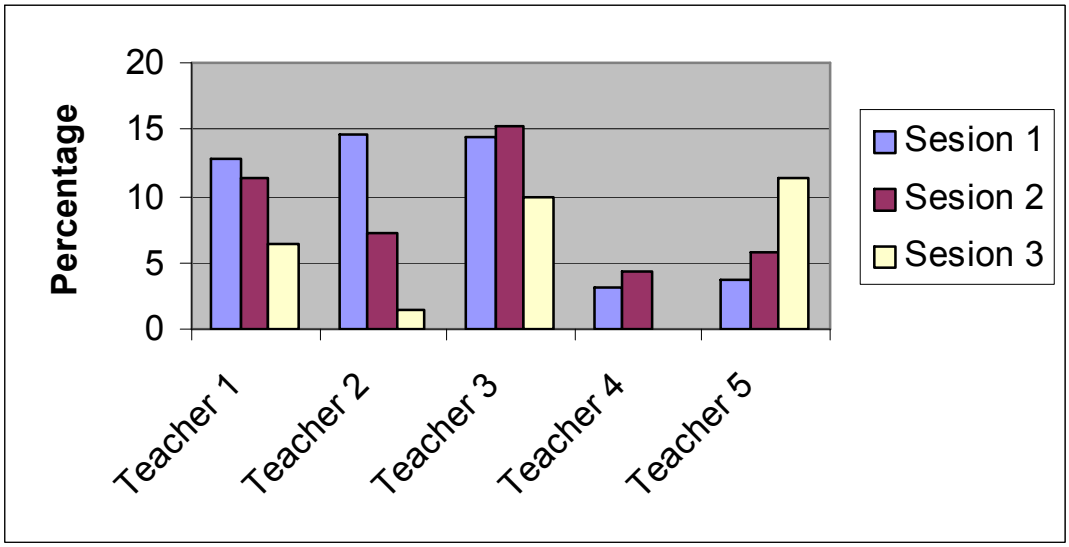

Figure 4.2. Distribution of the total higher cognitive utterance level from Session 1 to 3.

Figure 4.2 graphically displays the percentage of higher cognitive utterances that are indicated in Table 4.4. The trend among Teachers 1 to Teacher 4, also indicated in Table 4.4, shows a decline in higher cognitive utterances from Session1 to Session 3. Teacher 5 is the only teacher that did not follow this trend.

It is important when assessing the cognitive level of a question to keep the context of the question in mind. For example, when reading an unfamiliar book (Session1) a question such as, "What do you think will happen next?" is a high level cognitive analysis question where as the same question in the second session would be classified as a low Level 1 memory question. It is thus easier to ask the children a cognitively higher level question when they are not familiar with the book.

The data indicates the general level of interaction that the teachers are providing to the children during storybook reading. However, when individual teachers are evaluated it can be

seen that very different patterns emerge, that may be the result of different ways of interacting around the story book activity.

4.3.2 Description of individual teachers

Table 4.3 and 4.4 provide an indication of the range of cognitive levels used by the individual teachers, expressed in terms of the number of utterances per category in the top line and the percentage of utterances used per level, in the bottom line. The sections that are of importance are highlighted with a gray background

Table 4.3

Comparison of cognitive levels of utterances used by the individual Teachers over all the sessions

Frequency (n) Row percentage (%)	Low cognitive	High cognitive	Total Proportional %
Teacher 1	270 90%	31 10%	n301 16.80%
Teacher 2	379 93%	28 7%	n407 22,70%
Teacher 3	352 87%	53 13%	n405 22.61%
Teacher 4	210 97%	6 3%	n216 12.06%
Teacher 5	n432 94%	n30 6%	n462 25.80%
Total Proportional %	1643 91.74%	148 8.25%	
Chi-square P-value	P< 0.0001*		

* Significant at the 5% level

Table 4.4

Comparison of cognitive levels of utterances used by the individual Teachers

Frequency / **Row percentage %**		**Low cognitive**		**High cognitive**				**Total**
		Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**	**Level 6**	
Teacher 1	**Session 1**	65	24	5	6	2	0	n102
	%	64%	24%	5%	6%	2%	0%	
	Session 2	51	42	4	1	4	3	n105
	%	49%	40%	4%	1%	4%	3%	
	Session 3	67	21	1	1	4	0	n94
	%	71%	22%	1%	1%	4%	0%	
	Total low: 90%			**Total high: 10%**				
Teacher 2	**Session 1**	44	32	7	4	2	0	n89
	%	49%	36%	8%	4%	2%	0%	
	Session 2	124	44	8	1	4	0	n181
	%	69%	24%	4%	1%	2%	0%	
	Session 3	112	23	2	0	0	0	n137
	%	82%	17%	1%	0%	0%	0%	
	Total low: 93%			**Total high: 7%**				
Teacher 3	**Session 1**	84	41	12	4	5	0	n146
	%	58%	28%	8%	3%	3%	0%	
	Session 2	72	28	11	5	2	0	n118
	%	61%	24%	9%	4%	2%	0%	
	Session 3	65	62	12	2	0	0	n141
	%	46%	44%	9%	1%	0%	0%	
	Total low: 87%			**Total high: 13%**				
Teacher 4	**Session 1**	40	15	2	0	0	0	n57
	%	70%	26%	4%	0%	0%	0%	
	Session 2	66	24	3	0	1	0	n94
	%	70%	26%	3%	0%	1%	0%	
	Session 3	44	21	0	0	0	0	n65
	%	68%	32%	0%	0%	0%	0%	
	Total low: 97%			**Total high: 3%**				
Teacher 5	**Session 1**	148	29	6	0	1	0	n184
	%	80%	16%	3%	0%	1%	0%	
	Session 2	117	29	5	2	2	0	n155
	%	75%	19%	3%	1%	1%	0%	
	Session 3	96	13	8	3	3	0	n123
	%	78%	11%	7%	2%	2%	0%	
	Total low: 94%			**Total high: 6%**				

When evaluating the data from Table 4.3 and 4.4 for each teacher individually, one can see differences in the percentages of higher cognitive level utterances that they provide over the different sessions.

Teacher 1 presents with a good spread of questions in all cognitive levels and is the only teacher who asked any level 6 questions. This spread through all the levels indicates that she attempted different kinds of interactions, however, as was discussed in Section 4.2.1, the children in this classroom did not seem used to answering high level cognitive questions, which forced the teacher to model patterns of thinking to encourage cognitive high level thinking.

Teacher 2 showed a tendency towards Level 2, 3 and 4 utterances in Session 1 but presented with a sharp decline in Session 2 and even further decline in Session 3, i.e. the frequency percentage of Level 1 utterances increased and Level 2, 3 and 4 utterances decreased. This indicates that although Teacher 2 used good interactive techniques, such as rhymes and songs which encourage emergent literacy learning (Section 4.2.2), the level of cognitive involvement decreased. This decline in cognitive involvement is also seen due to the lack of variation in questions asked through the sessions as is explained in Section 4.3.1 above.

Teacher 3's profile presented with the highest frequency of cognitive high level questions in general over all the sessions (See Table 4.3). Teacher 3 produced an average frequency of 13% of cognitively higher level utterances over the three sessions (see Table 4.3). This is an indication of her way of structuring the storybook times (Section 4.2.3). In general her teaching is very child centered, allowing the children to spontaneously ask questions, provide ideas and reasons for occurrences. This was seen during normal teaching time before the recording session. This teaching technique flows over into the storybook reading time, as the children were able to provide their own opinions. This focus of attention on the children allows the teacher to ask open-ended high cognitive level questions and respond to the children, to provide an understanding of the content of the book. This is in agreement with Moschovaki and Meadows (2005b), who indicated that allowing children to actively control and shape the interactions encouraged higher cognitively demanding activities.

Teacher 4 also displayed a different pattern, producing less utterances throughout the three sessions and also had the lowest frequency of cognitively high level utterances (Table 4.3), when compared to the other teachers (Figure 4.2, Table 4.3). This was reflected in her way of structuring the storybook time, as she raced through the book in the shortest amount of time possible. This created a short space of time in which to think of questions and therefore

questions were often taken straight out of the text as they were presented. The focus of attention was on the book at all times, and the interaction was teacher-controlled.

Teacher 5 increased her number of cognitively high level utterances from Session 1 to Session 3, as shown in Figure 4.2. This was also due to her way of presenting the story, which changed as the book became more familiar to the children. Initially her focus was mainly on the book with the entire session being teacher-directed. Children were asked questions and had to answer, they were asked to show physical objects and had to repeat story sentences constantly. This focus of attention changed in the second session as it became more child-centered. The session started off just as Session 1 but then changed when the children used puppets to retell the story to each other. At this point the focus of attention shifted and the teacher started to ask more, cognitively high level questions such as sequencing and retelling of the entire story. In Session 3 the focus of attention had shifted entirely to the children. This therefore resulted in an even higher cognitive level of utterances.

This shift from Session 1 to 3, which showed an increase in the cognitive level of utterances used by the teacher, is a good indication of how the teacher progressed through the book and is consistent with the observation made in Section 4.2.5. The initial session was used to familiarise the children with the storyline, objects used in the story and ensure that children remembered the story. This then progressed to what Otaiba (2004) terms as a storybook celebration. This is a time of engaging in other activities around the story, such as role play, storybook retelling, etc. A storybook celebration therefore lends itself to a shift in control towards the children, thereby encouraging an increase in cognitive high level engagement (Cotton, 1991; Jarema, 2007).

In conclusion, from the above it is seen that the use of different ways of presenting the story influences the level of cognitive utterance used. Using the results and description of story book presentations it appears that a shift in the control from the teachers to the children may naturally facilitate more cognitively high level utterances, as is seen in Teacher 3 and Teacher 5. This can be done through open-ended questions and encouraging child participation as well as role play by the children to retell the story. Taking time to discuss the story in more depth, asking questions and answering children's responses may also facilitate this process.

The process of engaging children not only rests on the cognitive level of the utterances but is also a function of the types of utterances. This will be discussed in the following section.

4.4 Types of utterances used

Teacher's utterances were not only coded for the cognitive level that they were on, but also the type of utterance used. These types of utterances were: give information, request information, responsive and chiming. Utterances that provided the children with extra information were coded as "give information." Those that asked questions or expected a child's response were coded as "request information." A teacher responding to a child's utterance was coded as "responding," with "chiming" being a repetition of sentences or words in a sing-song type manner.

All codes used were mutually exclusive and therefore each utterance was only given one code within this section. (See Appendix B)

4.4.1 General description

Table 4.5 provides an indication of the types of utterances used by all the teachers, expressed as an average of all the teachers, in terms of the number of utterances and percentage of utterances used per category. The sections that are of importance, are highlighted with a gray background.

Table 4.5

A comparison of the types of utterances expressed as an average of all teachers

Frequency (n) / **Row percentage (%)**		**Types of utterances**				**Total Proportional %**
		Give information	**Request information**	**Respond**	**Chiming**	
All teachers	**Session 1**	144	255	107	72	n 578
	%	25%	44%	19%	12%	32.70%
	Session 2	153	303	127	70	n 653
	%	23%	46%	19%	11%	36.46%
	Session 3	125	264	120	51	n 560
	%	22%	47%	21%	9%	31.27%
	Total Proportional %	422 3.56%	822 45.90%	354 19.77%	193 10.78%	
Chi-square P-value		P = 0.4596*				

* Not significant at the 5% level

The table indicates although there is no significant relationship shown between the sessions and the types of utterances, most teachers favor the use of requesting information from the child as a method of interaction. This is seen as the highest percentage of utterances fall into this category.

This pattern is in agreement with the pattern seen in the study done by Lim and Cole (2002). Although in this, a group of adults were trained on the use of interactive reading styles, it was found that questioning and adding more to children's utterances seemed to be the easiest to implement and were therefore the two interactive techniques that were most frequently used.

The above pattern is important (Table 4.5), as it indicates that the teachers did not just provide passive verbatim reading, but rather engaged in an interactive reading session. This interactive reading technique has been described by many researchers as having numerous benefits for the children, such as improved receptive and expressive vocabulary, more word types used, higher number of clauses, longer utterances, and so forth (Dickinson & Smith, 1994; Elley, 1989; Jimenez, Filippini & Gerber, 2006; Lim & Cole, 2002). Jarema (2007) and Fisher (2007) also indicate that thinking is motivated by questions. This therefore also supports the importance of questioning for the development of thinking skills.

In Table 4.5 it is seen, that overall the profile of the types of interactions by all teachers does not change over the sessions. From the overall profile one can look at the individual teacher's profiles to see if any patterns emerge.

4.4.2 Description of individual teachers

When investigating individual teachers, differences can be seen in their story book presentations and the techniques used and therefore also in the type of utterances used.

Table 4.6 provides an indication of the types of utterances used by the different teachers, expressed in terms of the number of utterances and percentage of utterances used per category. The sections that of importance, are highlighted with a gray background.

Table 4.6

A comparison of the types of utterances used by the individual teachers

Frequency (n) Row percentage (%)	Types of utterances				Total Proportional %
	Give information	Request information	Respond	Chiming	
Teacher 1	100 33%	136 45%	49 16%	16 5%	n 301 16.81%
Teacher 2	87 21%	223 55%	86 21%	11 3%	n 407 22.72%
Teacher 3	56 14%	186 46%	119 29%	44 11%	n 405 22.61%
Teacher 4	73 34%	85 39%	55 25%	3 1%	n 216 12.06%
Teacher 5	106 23%	192 42%	45 10%	119 26%	n 462 25.80%
Total Proportional %	422 23.56%	822 45.90%	354 19.77%	193 10.78%	
Chi-square P-value	P < 0.0001*				

* Significant at the 5% level

Table 4.6 shows a statistically significant relationship between teachers and types of utterances.

Teachers 1 and 2 both had a relatively average profile, with the category 'give information' scoring relatively high and the category 'respond' being on the lower side in comparison to the other teachers. Teacher 2 had the highest percentage of requests for information of all the teachers

Teacher 3 and 4 (Table 4.6) both presented with a high percentage of responses during the interaction. This was coupled with a high percentage of "information given" by Teacher 4. In Teacher 3's sessions this high percentage of responses can be explained by a presentation method, whereby children were encouraged to spontaneously come up with ideas, which were then responded to by the teacher to provide an understanding. This open classroom climate that Teacher 3 upholds was also discussed in Section 4.2.3. Responding to the children is one of the techniques that are suggested for use in the learning process, as it encourages children to continue with their thought processes (Cotton, 1991; Jarema, 2007; Klenz, 1987).

In Teacher 4 the responses provided to the children, were responses to the children answering the teacher's own immediate recall questions.

Teacher 5's storybook reading presentation was characterised by chiming with the children throughout all three sessions. This chiming was statistically significantly higher (Table 4.6) than any of the other teachers. It is interesting to note that although one might expect chiming to be used with children in a rural area, it is interesting to see that Teacher 5 was the only teacher who used a statistically significant amount of chiming.

4.5 Description of types of interactions and cognitive levels used during different time periods.

This section is used to describe the types of interactions and cognitive levels as a factor of the time in which they took place. These time periods are 1) interaction before the actual reading starts, when children are seated for story time, before the book was opened; 2) interaction during the reading procedure, when the teacher interacted around the book; and 3) interaction after the reading of the book was completed and the book was closed, but the children were still seated and interacting about the story they had just been read (see appendix B).

4.5.1 General description

Table 4.7 provides an indication of the distribution of cognitive levels and types of utterances in different reading periods, namely: before reading, during reading and after reading. The sections that of importance, are highlighted with a gray background

Table 4.7

Distribution of cognitive levels and types of utterances before, during and after reading

Frequency Row percentage (%)		Cognitive level		Total	Type				Total
		Low cognitive	High cognitive		Give info	Request info	Response	Chiming	
Session 1	Before reading %	85 94%	5 6%	n90 15.57%	15 17%	47 52%	25 28%	3 3%	n90 15.57%
	During reading %	366 91%	38 9%	n404 69.90%	120 30%	170 42%	46 11%	68 17%	n404 69.90%
	After reading %	71 85%	13 15%	n84 14.53%	9 11%	38 45%	36 43%	1 1%	n84 14.53%
	Total Proportional %	522 90.31%	56 9.69%		144 24.91%	255 44.12%	107 18.51%	72 12.46%	
Chi-square		P = 0.8217			P < 0.0001*				
Session 2	Before reading %	235 95%	13 5%	n248 37.98%	45 18%	130 52%	64 26%	9 4%	n248 37.98%
	During reading %	311 92%	27 8%	n338 51.76%	96 28%	144 43%	42 12%	56 17%	n338 51.76%
	After reading %	51 76%	16 24%	n67 10.26%	12 18%	29 43%	21 31%	5 7%	n67 10.26%
	Total Proportional %	597 91.40%	56 8.58%		153 23.43%	303 46.40%	127 19.45%	70 10.72%	
Chi-square		P < 0.0001*			P < 0.0001*				
Session 3	Before reading %	315 92%	26 8%	n341 60.89%	63 18%	170 50%	94 28%	14 4%	n341 60.89%
	During reading %	168 98%	3 2%	n171 30.54%	55 32%	71 42%	12 7%	33 19%	n171 30.54%
	After reading %	41 85%	7 15%	n48 8.57%	7 15%	23 48%	14 29%	4 8%	n48 8.57%
	Total Proportional %	524 93.57%	36 6.43%		125 22.32%	264 47.14%	120 21.43%	51 9.11%	
Chi-square		P = 0.0021*			P < 0.0001*				
All sessions	Before reading %	635 94%	44 6%	n679 37.91%	123 18%	347 51%	183 27%	26 4%	n679 37.91%
	During reading %	845 93%	68 7%	n913 50.98%	271 30%	385 42%	100 11%	157 17%	n913 50.98%
	After reading %	163 82%	36 18%	n199 11.11%	28 14%	90 45%	71 36%	10 5%	n199 11.11%
	Total Proportional %	1643 91.74%	148 8.26%		422 23.56%	822 45.90%	354 19.77%	193 10.78%	
Chi-square		P < 0.0001*			P < 0.0001*				

* Significant at the 5% level

The left-hand side of Table 4.7 classifies the utterances before, during and after reading according to cognitive levels. When examining the table it can be seen that in Session 2 and Session 3 there is a statistically significant increase in the percentage of high cognitive utterances after the reading process. When looking at the overall percentages, across all sessions, it is also indicated that there are statistically significantly more high cognitive utterances, in the after reading period. The after reading period contains a frequency of 18% high cognitive utterances when compared to 6% and 7% for before and during reading respectively. This may indicate a natural time for the introduction of high cognitive utterances, as it is already most prevalent in the after reading time period.

When examining the right hand side of Table 4.7, the relationship between the time period and the type of utterance used, is investigated. In this section it is found that before and after reading the use of requests and responses are most common. During reading, this shifts from responses to giving of information and chiming, with requests still being high percentage although this is not as high as before. This shift in type of utterance used is statistically significant and may be explained by the way in which these periods were structured.

The before reading time is used as a preparation phase initially and then later becomes a time to recall the story from the previous session. This is a time when children are stimulated to provide information, allowing the teacher to respond in order to acknowledge utterances and provide an understanding of correctness. This time period was characterised by role play from the children, children "reading" the story and the use of pictures to tell the story to the class. These times are child-centred and allow the teacher to merely request information from and respond to the children.

During the reading process the focus is on the story itself. Teachers use this time to give extra information to the children and thereby increase understanding of the story. It is also noted that the majority of chiming occurred within this period. This may be due to the way in which teachers use chiming, as children usually repeat sentences that teachers have read.

4.6 Overview of results

The results of this study will first be grouped according to the three sub-aims and discussed separately. Following these three discussions, will be a short integration to answer the main aim of the study.

4.6.1 Describing the cognitive levels of utterances used by teachers

The teachers in this study used utterances on all six levels of Blooms taxonomy, however the highest frequency of utterances were found in the lower cognitively challenging levels. Frequencies of 90%, 91% and 94% (Table 4.2) were found for the lower cognitively challenging utterances in Sessions 1 to 3 respectively.

It was also found that the unfamiliar book (Session 1) allowed for a higher production of cognitively high level challenging utterances, as context changed when the book became more familiar in Sessions 2 and 3. For example the teacher was able to ask the child to predict an upcoming event in Session 1 with an unfamiliar book. However, this method of using the book as a guide, was not able to be repeated. The reason being, that once the children knew the story, these questions were no longer coded as cognitively high level questions. This problem was overcome, specifically by Teacher 5, who increased her cognitively high level utterances by shifting the control from herself to the children. This allowed for more, cognitively high level retelling, sequencing and role play of the story, with limited teacher guidance.

Teacher 3, who used open-ended questions and allowed the session to be child-controlled, produced statistically significantly more cognitive high level questions. This again indicates that the shift in control from the teacher to the children facilitated an increase in cognitive high level utterances. This teacher also used a number of decontextualised utterances and discussed other concepts that were not specifically linked to the story itself. It was found that this method of storybook reading also produced an increase in the frequency of cognitive high level utterances.

Teacher 4, who struggled to pause and allow children to respond to interactions and did not give herself time to think of questions, produced statistically significantly less cognitive high level utterances. This indicates the importance of using waiting time as a method of producing more cognitive high level utterances.

These are the main findings found in the study that were related to the cognitive level of the utterances used by teachers.

4.6.2 Describing the types of utterances used by teachers

All teachers used a range of types of utterances within the storybook reading presentation, however there was a general tendency towards, requesting of information as a method of interaction. The frequency of requesting information was 44%, 46% and 47% for Sessions 1 to 3 respectively.

The sessions that were found to have a higher frequency of giving information were coupled with teachers who maintained the focus of control throughout the session and did not allow children to shape the interaction.

4.6.3 Differentiating the cognitive levels and types of utterances used in terms of before, during and after the reading period

In this section it was clearly seen that teachers interact throughout the storybook reading session, although some teachers preferred to shorten the actual reading time or leave it out completely in Sessions 2 and 3.

It was also seen that the highest percentage of high cognitive utterances, were used in the after reading period. This seemed to be a time of recapping the story through retelling and sequencing as well as a time in which teachers asked "why" questions such as, why children thought certain things happened, what would they have done in the situation and so forth.

4.6.4 Describing how teachers interact during storybook reading with Grade R children

From the above it can be seen that teachers interacted on different levels, using different types of utterances and during different time periods.

Using the information from the description of the teacher's storybook reading session it can be seen that the teachers used a number of different interactive techniques that are suggested by researchers to be used in order to increase oral language gain, emergent literacy gain and improve the level of cognitive thinking. It was, however, still found that most of the techniques used were not encouraging enough cognitive high level thinking and that the techniques were

also not used by all teachers. Some teachers used more techniques than others did, but there is still a large discrepancy between the number of techniques that are available for use and the number of techniques that were actually being used by the teachers.

4.7 Summary

In this chapter the three sub-aims were explored and the results discussed. The chapter started with a general description of all the participants' story presentations. These descriptions were taken from video recordings and general observations in the classroom.

A description and discussion of the cognitive levels of interaction followed (sub-aim 1). The next section discussed sub-aim 2, the type of utterances used. Sub-aim 3 followed, with a discussion of the cognitive levels and types of utterances used in terms of the time period that they were taking place in.

The chapter was then concluded with a short overview of the results, which will be integrated and discussed in the next section, chapter 5.

CHAPTER 5: CONCLUSION

5.1 Introduction

This chapter will integrate the results found in the study, by introducing the general trends, and individual teacher's cognitive utterance levels. It will then discuss the effect of the repeated sessions and the time period in which interactions took place. A critical evaluation of the study will follow, in order to evaluate the strengths and limitations of the study with a discussion of the recommendations for further research.

5.2 Integration of results

This study found that, although some teachers used utterances on all six levels of Blooms taxonomy, by far the highest frequencies of utterances were found in the lower cognitively challenging levels. A number of different techniques were used by teachers, in order to facilitate these higher cognitively challenging levels of interaction, however most interactions were still found on the first level of Blooms taxonomy, which indicates that very few cognitively challenging interactions were taking place.

From the study, cognitive high level utterances were 6% to 10% of the total utterances and cognitive low level utterances made up 90% to 94% of the utterances. It seems like there is an enormous difference between these two levels. Using the Grade 12 exam papers as a guide for an average distribution. It is seen that these exam papers are formulated with about 30% to 50% of the questions testing high level thinking skills, such as application, analysis, evaluation and creation (South African Department of Education, 2005). This distribution can be used as a guideline, but it is important to note that high cognitive thinking should not only be introduced in Grade 12 but throughout the school system. As is indicated by Valencia and Sulzby (1991) and Whitehurst et al (1994), reading needs to start with young children, as it is seen as an emergent literacy experience.

It was also found that the unfamiliar book allowed for a higher production of high cognitively challenging utterances, as this context allowed for high-level prediction questions. These questions were however not able to be repeated, as once the children knew the story, these questions were no longer coded as high level questions.

Teacher 3, who had the highest percentage of high cognitive utterances throughout all three sessions, used techniques such as open-ended questions and allowed the session to be child-controlled, as Moschovaki and Meadows (2005b) suggest.

Teacher 4, who struggled to pause and allow the children to respond to interactions and did not give herself time to think of questions, produced the lowest percentage of cognitively high level utterances, indicating the importance of using waiting time as a method of producing higher cognitive level utterances. This being a method supported by Cotton (1991).

When investigating the types of reading styles that the teachers used, it is important to note that the teachers did not just use verbatim reading, but rather an interactive reading style. This was seen through the high frequency of information requested from the children by all the teachers.

Using the information from the description of the teacher's storybook reading session it can be seen that the teachers used a number of different interactive techniques that are suggested by researchers to be used in order to increase oral language gain, emergent literacy gain and improve the level of cognitive thinking. It was, however, still found that most of the techniques used were not encouraging enough cognitive high level thinking and were also not used by all teachers. Some teachers used more techniques than others did, but there is still a large discrepancy between percentage of cognitive high level utterances that were being used and the percentage that was being used as a guideline for Grade 12 exam papers.

When investigating whether change occurred over the three sessions, it is important to note that although no statistically significant relationships were found for cognitive levels or utterance types for all teachers combined, some teachers did display different trends. For example Teacher 5, effectively changed her techniques over the sessions to increase the amount of cognitively high level utterances. This indicates growth, as she became more familiar with the book, she shifted the control to the children as is described by Moschovaki and Meadows (2005b) as a method to elicit cognitively high level interactions from the children.

On investigation of the time period in which certain interactions occurred, it was noted that the highest percentage of cognitively high level utterances, were used in the after reading period. This seemed to be a time of recapping the story through retelling and sequencing as well as a time in which teachers asked "why" questions. Questions such as, why the children thought certain things happened, what they would have done in the situation and so forth were asked. This method of using provoking questions is also suggested by Fisher (2007), Jarema (2007) and Klenz (1987), to improve cognitively high level thinking.

5.3 Critical evaluation

The research was aimed at recording the teachers during natural storybook reading. It has to be recognised that, although a number of methods were applied to ensure the maintenance of a natural situation, it may be possible that teachers changed their reading techniques in response to being evaluated, and one can not be sure if an absolutely natural situation was observed. One of the methods used, was to ensure that the camera was facing the teacher and behind the children, allowing for optimal sound recording and minimal disturbance of the children during the recording sessions.

This research study was done with a small sample size of only 5 teachers. This sample size allowed an in depth evaluation of this group of teachers storybook presentations, thereby providing a large amount of information within that group. It unfortunately,

however is not large enough to generalise. The sample taken, was also a sample of convenience around the Ingwavuma town area, which is not a complete representation of the entire Ingwavuma community.

The study was structured in such a way that it recorded all the teachers doing the same task. This was important for comparisons between the teachers but forced the researcher to omit other storybook reading times that were taking place in one of the classrooms, as these reading times were done in small groups and were not able to be compared to the group.

The three sessions done, were 5 to16 days apart from each other. This ensured that both the children and the teachers remembered the storybook from the previous session and were able to build on their sessions, allowing for evaluation over time.

The translation and recording process of this study was only focussed on the teacher and, as Jarema (2007) states, it is important to note that questions are not only one sided, the questioning needs to originate from the children as well. The children's side of the conversation was not coded for this study and is seen as a limitation.

5.4 Recommendations for further research

As is stated above, the maintenance of a natural situation is very important for such a study. Therefore further implementation of techniques such as having the researcher in the classroom for longer periods with the camera present and switched on without the teacher realising, would be ways of trying to record a more natural setting.

The small sample size used was due to time and financial restraints and if these factors allow for a larger study to take place it is suggested that the sample size be increased to a larger representation of the community. It is also suggested that the sample be taken with similar proportions of teachers from all the different circuit areas in the community used.

The importance of small groups in teaching emergent literacy and cognitive thinking skills can not be overlooked as the benefits are seen in theory (Otaiba,2004) and in the attitude of the children. It would therefore be meaningful to be included in future research, if it is part of the teacher's natural method of storybook reading.

The in-depth study that was done on the teacher's interactions was meaningful, if however the study were to be modified, the translation and coding of both the teacher and children's utterances is suggested. This would provide an indication of how the children are responding and whether their cognitive response level is the pitched at the same level, as the teachers or how they respond to the teachers. It would also indicate how much and at what cognitive level the children are initiating interaction.

This research indicates that teachers are already applying a number of the suggested techniques to their storybook presentations. This demonstrates that there may be a possibility that making small changes to teachers storybook presentations can facilitate an increase in the use of high cognitively demanding utterances and utterances that will encourage oral language and emergent literacy gain. Further studies could be done, knowing the positive effects of the interactive reading techniques, to implement a training programme for teachers in order to increase the use of these techniques and to evaluate whether these interactive reading styles in fact change, as a result of the training progamme.

5.5 Summary

This chapter is a summary of the results found, that were used to answer the three sub-aims of the study. The chapter then concludes with a critical evaluation of the study and recommendations that follow from this evaluation.

REFERENCES

Allor, J. H., & McCathren, R.B. (2003). Developing emergent literacy skills through storybook reading. *Intervention in School and Clinic, 39*(2), 72-79.

Bedrosian, J. L. (1999). Efficiency research issues in AAC: Interactive storybook reading. *Augmentative and Alternative communication, 15*, 45- 55.

Bikitsha, N., & Masuku, S. (2005). *Usikhukhukazi Obomvu*. Johannesburg: READ Educational trust.

BMDP Statistical Software manual (Release 7.0, Vol. 1). (1992). West Sussex, England: John Wiley and sons.

Cotton, K. (1988). Classroom questioning. *North West Regional Educational Laboratory, 5*, 1-12.

Cotton, K. (1991). Teaching thinking skills. *North West regional Educational Laboratory- School improvement research series, 11*, 1-19.

Crain-Thoreson, C., & Dale, P. S. (1999). Enhancing linguistic performance: Parents and teachers as book reading partners for children with language delays. *Topics in Early Childhood Special Education, 19*(1), 1-17.

Dickinson, D. K., & Smith, M. W. (1994). Long term effects of preschool teachers book readings on low-income children's vocabulary and story comprehension. *International ReadingAssociation, 29*(2), 104- 122.

Elley, W. B. (1989). Vocabulary acquisition from listening to stories. *Reading Research Quarterly*, *24,* 174-187.

Ewers, C. A., & Brownson, S. M. (1999). Kindergarteners' vocabulary acquisition as a function of active vs. passive storybook reading, prior vocabulary, and working memory. *Journal of Reading Psychology, 20*, 11-20.

Fisher, R. (2007). Dialogic teaching: Developing thinking and metacognition through philosophical discussion. *Early Child Development and Care, 177*(6/7), 615-631.

Gough, D. (1991). Thinking about thinking. *National Association of Elementary School Principles.* (Publication No. ED 327 980)

Heath, S. B. (1989). Oral and literate traditions among black Americans living in poverty. *American Psychologist. 44*(2), 367-373.

Heath, S. B. (1980). The functions and uses of literacy. *Journal of Communication, 30*(1), 123 -133.

Hibkle, D. E., Wiersma, W., & Jurs, S. G. (1982*). Basic behavioural statistcs.* Boston: Houghton Mifflin Company.

Hong, Z., & Aiex, K. (1995). Oral language development across the curriculum, K-12. *Eric digest,* 1-4.

Iturrondo, A. M., & Velez Vega, C. M. (2007). Vygotsky and the education of infants and toddlers: A conceptual framework based on the notion of inclusion of typical and atypical children. [on-line], Retrieved March 28, 2007, from http://0-psych.hanover.edu.innopac.up.ac.za/vygotsky

Jarema, S. (2007). Encouraging thinking skills in young children. Retrieved August 16, 2007, from http:www.googolpower.com/content/articles/encouraging-thinking-skills-in-young-children

Jimenee, T. G., Filippini, A. L., & Gerber, M. M. (2006). Shared reading within Latino families: An analysis of reading interactions and language use. *Bilingual Research Journal, 3*0(2), 431-451.

Kaderavek, J. N., & Sulzby, E. (1998). Parent-child joint book reading: An observational protocol for young children. *American Journal of Speech-Language Pathology, 7*(1), 33-47.

Klenz, S. (1987). Critical and creative thinking. Retrieved August 16, 2007, from http://www.sasked.gov.sk.ca/docs/policy.

Krathwohl, D. R. (2002). A revision of Bloom's Taxonomy: An overview. *Theory into Practice, 41*(4), 212-218.

Labush, D. (2001). Stop and think about it! Teachers links to learning. Retrieved on August 16, 2007, from http://www.netrox.net/~Labush.

Lemke, J. L. (1983). Making text talk. *Theory into Practice, 28*(2), 136-141.

Light, J., Binger, C., & Smith, A. K. (1994). Story reading interactions between preschoolers who use AAC and their mothers. *Augmentative and Alternative Communication, 10*, 255-267.

Lim, Y. S., & Cole, K. N. (2002). Facilitating first language development in young Korean children through parent training in picture book interactions. *Bilingual Research Journal, 26*(2), 213-227.

Lonigan, C. J., & Whitehurst, G. J. (1998). Relative efficacy of parent and teacher involvement in a shared reading intervention for preschool children from low-income backgrounds. *Early Childhood Research Quarterly,. 13*(2), 263- 290.

Lyle, S. (1993). An investigation into ways in which children talk themselves into meaning. *Language and Education, 7*(3), 181-87.

MacFarlane, D. (2005, April 01). False claims on adult literacy. *Mail and Guardian online.*

Masney, D. (1996). Literacy development in young children. *Child and Family, Canada*, [online], Retrieved on 28 March 2007, from http://www.cfc-efc.ca/docs/cccf/00000049.htm

McMillian, J.H., & Schumacher, S. (2001). *Research in education: A conceptual introducation* (5th ed.) New York: Longman.

Moschovaki, E., & Meadows, S. (2005a). Young children's spontaneous participation during classroom book reading: Differences according to various types of books. *Early childhood Research and Practice, 7*(1), 1-16.

Moschovaki, E., & Meadows, S. (2005b). Young children's cognitive engagement during classroom book reading: Differences according to book, text genre and story format. *Early Childhood Research and Practice. 7*(2), 1-16.

Nagy, W. E., Herman, P. A., & Anderson, R. C. (1985). Learning words from context. *Reading Research Quarterly*. 20(2), 232 -253.

Otaiba, S. A. (2004). Weaving moral elements and research based practices in inclusive classrooms using shared book reading techniques. *Early Development and Care. 174*(6), 575-589.

Pierce, P. L., & McWilliam, P. J. (1993). Emerging literacy and children with severe speech and physical impairments (SSPI): Issues and possible intervention strategies. *Topics in LanguageDisorders. 13*(2), 47-57.

Prinsloo, M., & Stein, P. (2004). What's inside the box? Children's early encounters with literacy in South African classrooms. *Perspectives in Education*, *22*(2), 67-84

Senechal, M., & Cornell, E. H. (1993). Vocabulary acquisition through shared reading experiences. *Reading Research Quarterly*. *28*(4),, 360-374.

Senechal, M., Thomas, E., & Monker, J. A. (1995). Individual differences in 4 year old children's vocabulary during storybook reading. *Journal of Educational Psychology. 87*(2), 218- 229.

South African Department of Education. (2005). National curriculum statement (Grade 10 to 12). Subject assessment guidelines. Pretoria, South Africa

Strickland, D.S., Morrow, L., Feitelson, D., & Iraqi, J. (1990). Storybook reading: A bridge to literacy language. *The Reading Teacher*, 44(3). 264-265.

Taggard. G., Ridley.K., Rudd.P., & Benefield, P. (2005). Thinking skills in early years: A literature review. *National Foundation of Educational Research.* (ISBN publication No. 1 905 313 124).1-16.

The online teacher resource (2007). *Glossary of terms.* Retrieved March 5, 2007, from www.teach-nology.com/glossary/terms/e/

Topping, K. J., & Bryce, A. (2004). Cross-age tutoring of reading and thinking: influence on thinking skills. *Educational Psychology, 24*(5), 505-621.

Valencia, S.W., & Sulzby, E. (1991). Assessment of emergent literacy: Storybook reading. *The Reading Teacher, 44* (7), 498-500.

Wegerif, R., Littleton, K., Dawes, L., & Mercer, N. (2004). Widening access to educational opportunities through teaching children how to reason together. *Westminster studies in Education. 27*(2). 143-157.

Whitehurst, G.J., Epstein, J.N., Angell, A.L., Payne, A.C., Crone, D.A., & Fischel, J.E. (1994). Outcomes of an emergent literacy intervention in head start. *Journal of Educational Psychology, 86* (4), 542- 555.

Wikipedia (Last modified 27 March 2007) *Lev Vygotsky*. Retrieved March 28, 2007, from http:enwikipedia. org/wiki/Lev_Vygotsky

APPENDIX A: RATIONALE FOR BACKGROUND INFORMATION GUIDELINE

Question category	Number of questions in category	Question area	Type of Question	Rationale
Biographical data	1	Name	Directed question	Used to code participants, as a unique identifier while working with raw data and to ensure a single participant's data remains together.
Experience	6	Years of experience (post graduation, in grade R, special needs, at this school) Prior experience Qualification	Directed question	This information is of vital importance as it indicates the prior experience the participant has with teaching techniques, the level of education of the teacher, as well as the world knowledge that the individual brings with them into the profession.
Logistical	2	Time of day and frequency of storybook reading	Directed question	Used for practical purposes to plan a data collection timetable.

APPENDIX B: CODING CHART RATIONALE AND CODED TRANSCRIPT

Appendix B provides the justification for the coding of certain question and gives an indication as to the reason for the placement of question on certain levels.

Section 1	Definition	Justification
Talk before reading of text	Starts when the teacher starts talking about the book and ends when she reads the first line of text (From Dickinson & Smith, 1994).	Dividing the interactions into sections allows the researcher to identify the types of interactions that occur in each section and therefore create a more accurate reflection of the patterns of interaction that teachers use during storybook reading.
Talk during reading of text	Starts when teacher reads first line of text and ends when she completes speaking about the last line of text (From Dickinson & Smith,1994).	
Talk after reading of text	Starts after the teacher finishes speaking about the last line of text and ends when conversation about the storybook ends (From Dickinson & Smith, 1994).	
Section 2	**Definition**	**Justification**
Give information	Teacher provides information or focuses the children's attention through the use of a rhetorical question. Excludes text reading (From Dickinson & Smith, 1994).	Provision of extra information by the teachers is a method of teaching during storybook reading and has been identified as a reading technique (Dickinson & Smith, 1994; Elley, 1989; Lonigan & Whitehurst, 1998).
Request information	Teacher requests information, waiting for at least three seconds for a child's response (From Dickinson & Smith, 1994).	Teachers requesting extra information or guiding the children to think in different ways is a method of teaching during storybook reading and has been identified as a reading technique (Lonigan & Whitehurst, 1998; Senechal & Monker, 1995; Whitehurst et al, 1994).
Responsive	Responding to the preceding utterance of the child (From Dickinson & Smith, 1994).	Responding to the child, provides information to them by indicating to them that their answer is correct, incorrect or needs more information and is used as a method of teaching though storybook reading.
Chiming	Chiming or encouraging chiming of familiar words/sentences. At least one word is repeated with the children (From Dickinson & Smith, 1994).	This is a method of involving all the children and drawing their attention to the story through a sing-song type chanting with the teacher, and is used as a storybook reading technique (Prinsloo & Stein, 2004).

Section 3	Blooms taxonomy explanation (Krathwohl, 2002)	Interaction examples	Importance/ Justification
Level 1: Remember	Retrieving relevant knowledge from long-tern memory, recognising and recalling	Asks children to label pictures or events in the book (From Light, Binger & Smith, 1994 and Dickinson & Smith, 1994).	Increases children's vocabulary and provides phonological awareness through slower repetition and depending on the book, also highlights rhyming, etc.
		Recall of text from previous session, one sentence or less (From Dickinson & Smith, 1994).	This guides children to recall information without processing.
		Remember things such as numbers, colour, alphabet, by use of rhyme or song (From Dickinson & Smith, 1994).	These interactions require the children to recall previously memorised information without linking it to any other concept.
Level 2: Understand	Determining the meaning of instructional messages, including oral, written and graphic communication (Interpretation, exemplification, classifying, summarising, inferring, comparing, explaining) .	Recall of extended text, more than one sentence (From Dickinson & Smith, 1994).	Encouraging narrative skills and ensures understanding.
		Labeling of unfamiliar or new objects (From Dickinson & Smith, 1994).	Provides an understanding of the objects in the book.
		Teacher explains the vocabulary/story to the class or requests vocabulary explanation from the child (From Dickinson & Smith, 1994).	Provides meaning to new vocabulary and increases the child's vocabulary.
		Correction or approval of child's utterances (From Light, Binger & Smith, 1994).	Provides the child with an indication of whether their understanding is correct or not.
		Guide children to relate the story to their own experiences (similarities/differences) (From Light, Binger & Smith, 1994 and Dickinson & Smith, 1994).	Links the child's experiences to the new concepts to create an understanding.
		Probe the child about understanding of story.	Allows teachers to gage the level of understanding of the children.
Level 3: Apply	Carrying out or using a procedure in a given situation, executing, implementing.	Prior information needed to respond to request. Use information and apply immediately to request without any analysis.	Allows for application of prior information without higher level thinking and complicated analysis.
		Teacher uses the story to imply required behavior (from Allor & McCathren, 2003).	Application of the story text to the children's lives.
		Use of prior info to predict upcoming events without analysis (repetitive events) (From Dickinson & Smith, 1994).	Allows for application of prior information without higher thinking with complicated analysis.
		Asking the children to break up the story and sequence the steps.	Provides memory and sequencing skills to the child.
Level 4: Analyse	Breaking material into its constituent parts and detecting how the parts relate to another and to an overall structure or purpose.	Use prior information, manipulating it to come up with a new aspect.	Provides analysis of the situation to formulate a new aspect.
		Use of prior information to predict upcoming events with analysis (non repetitive events).	
		Asking children to explain the moral of the story or importance (from Allor & McCathren, 2003).	Use of the story as a basis for analysis of social structures and behaviors.
		Asking the children to analyse the sounds: segmenting and blending letters, sounds or words (from Allor & McCathren, 2003).	Allows for the development of phonological awareness.
		Evaluating the situation and creating a point of view.	Allows the children to make judgments.
Level 5: Evaluate	Making judgments based on criteria and standards, checking, critiquing.	Use the story to stimulate the child's own thoughts.	Giving the children the opportunity to evaluate the story on their own.
Level 6: Create	Putting elements together to form a novel, coherent whole or make an original product, generating, planning, and producing.	Using the story as a background but creating something completely new.	Encouraging independent thought.

All interactions were categorised into these three sections. Each utterance was given one code in each section, the codes are mutually exclusive and therefore only one code can be given to an utterance per section. In section 3 the utterances were evaluated on the factual knowledge level, of Bloom's revised taxonomy. This level mainly evaluates knowledge of terminology, specific details and elements. The level was chosen, as it is the most relevant for the study. The coding procedures used by Light, Binger and Smith (1994) and Dickinson and Smith (1994) were also compatible to this level.

The following are three separate examples of a coded transcript. The three examples do not follow each other but are individual coded sections.

Examples of a coded transcript

Utterance	Time period	Type of utterance	Utterance level
Show me, where is red?	Before reading	Request information	Level 1
What colour are you wearing?	Before reading	Request information	Level 1
OK, the red hen is red.	Before reading	Respond	Level 2
A hen, where is it kept?	Before reading	Request information	Level 3
Is it wild or domestic or where is it from?	Before reading	Request information	Level 3
OK, who knows a hen?	Before reading	Request information	Level 1
Rooster hen, kwek kwek who layed the egg, kwek kwek, I layed the egg	Before reading	Chiming	Level 1
We see the hen there she's going to the field, she's carrying her watering can, she's going to water.	Before reading	Give information	Level 1
Who waters at home?	Before reading	Request information	Level 1
OK, and she does too.	Before reading	Give information	Level 1
We see the hen there, she's going. The hen they say she lived with the lazy ones.	Before reading	Give information	Level 1
Who did she live with?	Before reading	Request information	Level 1

Utterance	Time period	Type of utterance	Utterance level
There is the hen carrying dishes, She wants to dish up.	During reading	Give information	Level 1
There they are saying at the same time, what are they saying?	During reading	Request information	Level 1
We will help.	During reading	Chiming	Level 1
What do you think she'll say?	During reading	Request information	Level 4
She'll give some to them.	During reading	Response	Level 2
What do others say?	During reading	Request information	Level 4
Will the hen give them some?	During reading	Request information	Level 4
Zama will the hen give them some mealie pumpkin porridge?	During reading	Request information	Level 4
Your mother says who will help me to ….cook food. And the person say's he's lazy. The mother cooks and dishes up for them. He eats and eats and leaves the plate like that without washing it.	After reading	Give information	Level 3
Do you also want to be like that?	After reading	Request information	Level 5
Don't do like that. I don't want you to be lazy, like the dog, the goat and the pig. I want you to be hardworking like the hen.	After reading	Give information	Level 5
Like who?	After reading	Request information	Level 1

APPENDIX C: RATIONALE FOR PARTICIPANT OBSERVATION GRID

Observation	Rationale
The number of children in the classroom?	This could influence the amount of interaction requested from the children, as the more children there are, the more difficult it is to maintain discipline. It is therefore assumed that the more children there are, the more difficult it is to have constructive interaction.
The positioning of the children with respect to the teacher during storybook reading?	The further the teacher is away from the children, the more difficult it is to interact as the children may not be able to see the picture etc.
The number of books available in the classrooms.	This may be an indication as to the number of resources available to the teacher.
Other observations made during data collection process.	Used to record any other information that may be of value to the study.

APPENDIX D:

Letter requesting consent from the Department of Education in KZN

Centre for Augmentative and Alternative Communication
Sentrum vir Aanvullende en Alternatiewe Kommunikasie
&
INTERFACE

2004 *T-Systems Age of Innovation & Sustainability Awards: Excellence in Innovation and Sustainability. Social*
2003 *National Science & Technology Awards. Corporate Organization over the last ten years.*
2002: *Shirley McNaughton Award for Exemplary Communication received from the International Society for Augmentative and Alternative Communication*
1998: *Rolex Award for Enterprise: Associate Laureate*

University of Pretoria

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Centre for Augmentative and Alternative Communication
Sentrum vir Aanvullende en Alternatiewe Kommunikasie
University of Pretoria, Lynnwood Road
PRETORIA, 0002
SOUTH AFRICA

9 January 2007

To Whom It May Concern,

RE: Request for permission to conduct a research project

I am presently completing a Masters degree in Augmentative and Alternative Communication at the University of Pretoria and as part of the degree I have to complete a research study. The area of research that I am interested in, is story reading to young children, the effects it has and how it is performed in a rural area.

The main objective of the research study is to provide an in depth assessment of, how storybook reading is done in the Ingwavuma area. During an evaluation of the available literature it was shown very strongly that there are great benefits from interactive storybook reading to early childhood literacy learning. For this reason the study is attempting to undertake a needs analysis in order to assist teachers in the future.

I hope to conduct this study between March and July 2007 in six schools, in the Ingwavuma area, at grade R level. The teachers willing to participate, will each be video taped 3 times during their storybook reading sessions These video tapes will then be translated and coded according to a specific chart that has been created, in order to describe the processes that are being used. The confidentiality of the teachers will be highly respected, and therefore the video recordings will only be viewed by the researcher and the translators. The final data will also not contain any information relating the participants to the data.

This study does not produce any risks for the teachers or for the children in the classroom during the time. There will be no intervention taking place but rather, a non-invasive observation. Through this observation the teachers will be instrumental in providing valuable information for further research.

The results of this study will be written up in a final Masters research thesis, which will be given to the University of Pretoria. This thesis may be published and will be presented at the annual

research seminar of the department of Augmentative and Alternative communication. All the information from the study will also be kept for 15 years.

All teachers will participate on a voluntary basis only and may withdraw from participation in the study at any time and without consequence.

I trust that you found the above information helpful. If you find that there is any other information or clarification that you require please do not hesitate to contact me or refer to the attached complete research proposal.

Please will you sign on the attached form to indicate if you would allow me to proceed with the above mentioned research project.

Many Thanks

Sonja Higham (Researcher)

Juan Bornman (Supervisor)

APPENDIX E:

Letter of approval from the University of Pretoria Ethics committee

University of Pretoria

Research Proposal and Ethics Committee
Faculty of Humanities

30 March 2007

Dear Prof. Alant

Project:	***Types of questions used by teachers during storybook reading***
Researcher:	**SA Higham**
Supervisor:	**Prof. E Alant**
Department:	**Centre for Augmentative and Alternative Communication**
Reference number:	**24317668**

Thank you for the application you submitted to the Research Proposal and Ethics Committee, Faculty of Humanities.

I have pleasure in informing you that the Research Proposal and Ethics Committee formally **approved** the above study on 22 March 2007. The approval is subject to the candidate abiding by the principles and parameters set out in her application and research proposal in the actual execution of the research.

The Committee requests you to convey this approval to Ms Higham.

We wish you success with the project.

Sincerely

Prof Brenda Louw
Chair: Research Proposal and Ethics Committee
Faculty of Humanities
UNIVERSITY OF PRETORIA

APPENDIX F:

Letter requesting consent from School Principals

Centre for Augmentative and Alternative Communication
Sentrum vir Aanvullende en Alternatiewe Kommunikasie
&
INTERFACE

University of Pretoria

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1998: *Rolex Award for Enterprise: Associate Laureate*

9 January 2007

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I am presently completing a Masters degree in Augmentative and Alternative Communication at the University of Pretoria and as part of the degree I have to do a research study. The area of research that I am interested in, is story reading to young children and how it is performed in a rural area.

The main objective of the research study is to provide an in depth assessment of, how storybook reading is done in the Ingwavuma area. During an evaluation of the available literature it was shown very strongly that there are great benefits from interactive storybook reading to early childhood literacy learning. For this reason the study is attempting to undertake a needs analysis in order to assist teachers in the future.

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This study does not produce any risks for the teachers or for the children in the classroom during the time. There will be no intervention taking place but rather, a non-invasive observation. Through this observation the teachers will be instrumental in providing valuable information for further research.

The results of this study will be written up in a final Masters research thesis, which will be given to the University of Pretoria. This thesis may be published and will be presented at the annual

research seminar of the department of Augmentative and Alternative communication. All the information from the study will also be kept for 15 years.

All teachers will participate on a voluntary basis only and may withdraw from participation in the study at any time and without consequence.

I trust that you found the above information helpful. If you find that there is any other information or clarification that you require please do not hesitate to contact me.

Please will you sign on the attached page to indicate if you would allow me to proceed with the above mentioned research project.

Many Thanks

Sonja Higham (Researcher)

Juan Bornman (Supervisor)

APPENDIX G:

Letter requesting consent from Grade R teachers

Centre for Augmentative and Alternative Communication
Sentrum vir Aanvullende en Alternatiewe Kommunikasie
&
INTERFACE

University of Pretoria

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2002: *Shirley McNaughton Award for Exemplary Communication received from the International Society for Augmentative and Alternative Communication*
1998: *Rolex Award for Enterprise: Associate Laureate*

1 March 2007

Dear Teacher,

RE: Request for permission to conduct a research project

I am presently completing a Masters degree in Augmentative and Alternative Communication at the University of Pretoria and as part of the degree I have to do a research study. The area of research that I am interested in, is story reading to young children and how it is performed in a rural area.

The main objective of the research study is to provide an in depth assessment of, how storybook reading is done in the Ingwavuma area.

The procedure that the study will pursue, is as follows:

1. All teachers will be met individually and the procedure explained verbally in order to provide an understanding of the project. During this time the teacher will be given opportunity to ask questions.
2. If the teacher agrees to participate in the study, the researcher will then ask some background information questions. (Please find a guideline for the questions in addendum A) and the dates and times for further recording sessions will be set.
3. In the recording session, the researcher will set up the video before the story reading starts in order to get the teacher and children used to the camera.
4. The teacher will be given a Zulu book that is unfamiliar to the children and asked to read this book to them. A complete recording will then be taken of the storybook reading session in the classroom.
5. This procedure will then be repeated weekly with the same book for a further 3 sessions.
6. On completion of each session the teacher will be asked if this was an accurate reflection of how the storybook reading usually takes place in the classroom.
7. These sessions will then be coded and processed by the researcher, with the help of a translator and an inter-rater.

The confidentiality of the teachers will be highly respected, and therefore the video recordings will only be viewed by the researcher and the translators. The final data will also not contain any information relating the participants to the data.

This study does not produce any risks for the teachers or for the children in the classroom during the time. There will be no intervention taking place but rather, a non-invasive observation. Through this observation the teachers will be instrumental in providing valuable information for further research.

The results of this study will be written up in a final Masters research thesis, which will be given to the University of Pretoria. All participants are also welcome to request a copy of the research results, when they have been completed. This thesis may be published and will be presented at the annual research seminar of the department of Augmentative and Alternative communication. All the information from the study will also be kept for 15 years.

All teachers will participate on a voluntary basis only and may withdraw from participation in the study at any time and without consequence.

I trust that you found the above information helpful. If you find that there is any other information or clarification that you require please do not hesitate to contact me.

Please will you sign on the attached page to indicate if you would like to participate in the above mentioned research project.

Many Thanks

Sonja Higham (Researcher)

Juan Bornman (Supervisor)

APPENDIX H:

The Red Hen (Usikhukhukazi Obomvu)
Bikitsha & Masuku (2005)

1 The red hen had a farm. She lived with the lazy goat, dog and pig.

2 In Spring the hen asks, "Who will help me plough for the mealies?"
3 "No we are lazy!" said the goat, the dog and the pig.

4 In Summer the hen asks, "Who will help me water the mealies?"
5 "No we are lazy!" said the goat, the dog and the pig.

6 At the end of Summer the hen asks, "Who will help me harvest the mealies?"
7 "No we are lazy!" said the goat, the dog and the pig.

8 In the Autumn the hen asks, "Who will help me grind the mealies?"
9 "No we are lazy!" said the goat, the dog and the pig.

10 In the winter the hen asks, "Who will help me to cook the pumpkin and mealie porridge?"
11 "No we are lazy!" said the goat, the dog and the pig.

12 When the pumpkin porridge was ready the hen asked, "Who will help me to eat the pumpkin and mealie porridge?"
13 "We will help you!" said the goat, the dog and the pig altogether.

14 The hen asked, "Now all of you want to help, but I planted the mealies on my own. I watered, harvested, ground and cooked the pumpkin and mealie porridge alone."

15 "Now I will eat the pumpkin porridge alone."

APPENDIX I:

In the pilot study the translated utterances were coded using three different coding systems. These three coding systems are displayed below.

Table A: Coding system used by Dickinson and Smith (1994)

Level	Coding type	Abbreviation	Explanation
Level 1	Talk before reading of text	&A	
	Talk during reading of text	&B	
	Talk after reading of text	&C	
Level 2	Give information	GI	Teacher provides information
	Request information	RI	Teacher requests information
	Responsive	R	Responding to the previous utterance
	Spontaneous	S	Comment not linked to a particular utterance
Level 3	**Cognitively challenging**		
	Analysis of character or event	A	An utterance that draws an analysis from the children or provides it
	Clarification of comments	C	An explanation of events, etc
	Recall of extended chunks	ER	Recall of more that one sentence
	Evaluative comments and responses	EV	Comments that evaluate in terms of morals, truth, etc
	Predication of coming events	P	Prediction of something
	Text-reader links	TR	Linking the text to the children's field of reference
	Vocabulary analysis	VL	Explanation/clarification of vocabulary
	Lower cognitively challenging		
	Book focused comments	BF	Comments directly focused on physical aspect of book
	Chiming	CH	Chiming of familiar words/sentences
	Recall of immediate facts	IR	Recall of fact immediately after info given
	Labeling or naming	L	Labeling of physical objects
	Skill routines	SR	Practicing of skills such as numbers, colour, alphabet, singing, etc
	Management interactions		
	Give attention	GA	Teacher giving attention to students
	Request attention	RA	Teacher requesting attention from students
	Feedback approval	FA	Teacher providing approval in the form of repeating the sentence
	Feedback correction	FC	Teacher repeating the sentence and correcting it
	Feedback response	FR	Teacher clearly stating that information was correct e.g. "Yes" or "That is correct."
	Task organization	TO	Organization of classroom activities

The codes in the system described in Table A, were combined with the following two systems to create the coding system used in the study (Appendix B). The only codes that were not used, are the ones with a gray background.

Table B: Coding system used by Light, Binger and Smith (1994)

Coding types	Explanation
Reads text	Reads the text of the story verbatim from the book
Labels pictures or events in the book	Labels objects, people, or actions in the pictures in the book or describes events in the story. This category includes labels in response to the child pointing to pictures in the book. It also includes comments on the story, provided they are not attempts to relate the story to the child's personal experiences.
Asks child yes-no questions about the book	Asks child questions about the pictures or events in the story that require a yes/no response. This category does not include yes/no questions that are attempts to relate the story to the child's personal experiences. It does not include requests for confirmation from the child.
Asks child open-ended questions about the book.	Asks wh-questions about the pictures or events in the story. This category does not include pointing or the child's personal experiences.
Relates the story to the child's experiences	Asks wh-questions, yes/no questions or makes comments to link the events in the story to the child's personal experiences.
Directs the child to turn pages, lift flaps, perform actions or point to pictures.	
Confirms child's communicative attempts or requests clarification	This must follow an attempt to communicate by the child.
Conversation fillers	These turns carry no specific content.
Off-topic comments	Makes comments, asks questions about things other than the story, the book or the child's experiences as they relate to the book
Unintelligible	Turns that are not intelligible as to their linguistic content or intent.

The codes described in Table B were combined with the codes in Table A and C to create the coding system used in the study (Appendix B). The only codes that were not used, are the ones with a gray background.

Table C : Blooms Taxonomy (Krathwohl, 2002)

Coding type	Explanation
Level 1: Remember	Retrieving relevant knowledge from long-tern memory, recognising and recalling.
Level 2: Understand	Determining the meaning of instructional messages, including oral, written and graphic communication. (Interpretation, exemplification, classifying, summarising, inferring, comparing, explaining)
Level 3: Apply	Carrying out or using a procedure in a given situation, executing, implementing.
Level 4: Analyse	Breaking material into its constituent parts and detecting how the parts relate to another and to an overall structure or purpose.
Level 5: Evaluate	Making judgments based on criteria and standards, checking, critiquing
Level 6: Create	Putting elements together to form a novel, coherent whole or make an original product, generating, planning, and producing.

The codes in the system described in Table C, were combined with those in Table A and B to create the coding system used in the study (Appendix B).

CHAPTER 5: CONCLUSION

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES