Abstract

By the middle primary level, many students who have established reading skills that are characterised by; high percentage accuracy in word recognition and efficient decoding, find it difficult to comprehend what they have read. They are often able to read a text at an age appropriate level and to complete basic literal responses, but are unable to frame their thinking as they read or connect to the text at a deeper level. This difficulty with comprehension diminishes their connection to the experiences in texts, undermines their learning in other areas and threatens their access to new information and knowledge.

The hypothesis of this study is that **teaching Year 3 students to conduct an inner conversation with the text, by using a questioning strategy before, during and after reading, frames the thinking that improves comprehension.** Research on the development of comprehension skills suggests that the questioning strategy has been found to be an effective tool for increasing comprehension. In this study the students were taught to carry on an inner conversation with the text. This inner conversation led to students being aware of the types of questions they posed (literal, inferential and evaluative) and how they could help themselves answer these questions. It was evident that the students were using the questioning strategy effectively when they;

- o Stopped to think about their reading and record their questions
- o Monitored their understanding and stopped to ask questions when they were confused
- o Read with a question in mind and noted when they found the information in the text
- o Asked inferential and evaluative questions that required further discussion

The study compared the results of two groups of Year 3 students; an intervention group of eight students who were taught to use a questioning strategy and a control group of eight students who received no instruction in the use of the questioning strategy. Results indicate that there was an improvement in the comprehension scores of the group that had been taught to conduct an inner conversation with the text by using the questioning strategy.

Findings and anecdotal evidence from the study suggest that teaching students to conduct an inner conversation with the text by teaching them to question and think as they read, results in students being able to use more complex questions (literal, inferential and evaluative) to frame their thinking and improve their engagement and understanding of the texts that they read. The implication for teaching is that the questioning strategy is beneficial to improving comprehension and should be included in instruction in the middle years of primary school.

Introduction

By the middle primary level, many students who have established reading skills that are characterised by; high percentage accuracy in word recognition, efficient decoding and the awareness of self management and control strategies to read accurately, find it difficult to comprehend what they read. They have mastered the 'mechanics' of reading, but are unable to answer questions beyond the literal level or connect to the text at a deeper level. This difficulty with comprehension diminishes their connection to the experiences in texts, undermines their learning in other areas and threatens their access to information and knowledge.

In the early years of primary school students read texts that are simple in structure and content, with comprehension mainly being at the literal level. By the middle years of primary school however, the texts become more sophisticated, with students being required to engage with the text in more complex ways. It is not enough for readers to be merely efficient decoders, but also to be able to make connections between what they know and new information, to understand what is read and to use information and experiences gained through reading to increase their knowledge. In describing reading Harvey (2001, p.8) states that "reading is a two pronged attack that involves cracking the alphabetic code to determine the words and thinking about those words to construct meaning. True comprehension goes beyond literal understanding and involves the reader's interaction with the text. If students are to become thoughtful, insightful readers, they must extend their thinking beyond a superficial understanding of the text."

In order to enable students to comprehend texts, many researchers have outlined a number of comprehension strategies that need to be taught. Although the descriptions of these strategies differ slightly, it can be recognised across the body of research that there are essential strategies that proficient readers use and that good comprehension instruction has at its core. Harvey (2001) summarises the strategies as; making connections between prior knowledge and the text, asking questions, visualising, drawing inferences, determining important ideas and synthesising information. This is supported by Pressley (2000) as cited in Dymock (2007), that good comprehenders use a number of strategies, including activating prior knowledge, monitoring comprehension, generating questions, answering questions, drawing inferences, creating mental imagery, identifying text structure and creating summaries. In examining the research on teaching comprehension skills, Parker & Hurry (2007, p.299) suggest that "children's understanding of text can be improved by the explicit

teaching of those comprehension strategies that are used implicitly by skilled readers, particularly the use of self-regulating strategies to generate questions about the text"

Authors Harvey & Goudvis (2007) add that it is not enough for proficient readers to simply use a given strategy, they must understand when and how to use it. A clear knowledge of comprehension strategies and their application, provide readers with a range of tactics to ensure that they construct meaning as they read. Underpinning this current study is the concept of 'reading as thinking', with the focus of the investigation on the use of the questioning strategy to frame the thinking that supports comprehension, and also the provision of opportunities to develop the metacognitive knowledge that readers use to apply the strategies as they read.

As students enter the middle years of primary school there is an increased demand for students to be able to comprehend beyond the literal, to inferential and evaluative levels. In order to meet this demand and address the difficulties that students are having with comprehension, there is a need for instruction in comprehension strategies to be delivered in an explicit way. To enable students to connect to what they are reading they need to be taught how to conduct an inner conversation that can help them question and think their way through reading a text. Hervey (2006) explains that explicit teaching of the skill of questioning as a comprehension strategy, can work towards helping students construct meaning from a text and become a more thoughtful reader. Research suggests that when good readers read they conduct an inner conversation with themselves and this is done by asking questions. Supporting this research Harvey (2001) notes that this inner conversation leads to thoughtful, engaged reading that enhances students' understanding, builds their knowledge and develops their insights. The questions that are part of the inner conversation assist readers to clarify understanding as they read. In a study by Litwiller Lloyd (2004) the findings showed that after teaching children to question, the students were able to use this skill to clarify meaning, identify confusing vocabulary and explore the author's intentions.

For many students who have difficulty with comprehension, the use of questioning for strategic reading is something they mainly do after the reading when they complete the familiar question-answer activities. Questioning is not a strategy that they automatically use to help frame their understanding before and while reading and in some ways they appear to rely on the teacher to pose the questions that will scaffold their understanding. In research done by Parker & Hurry (2007) into teachers' use of questioning and modelling

comprehension skills in primary classrooms, it was found that in surveying teachers about the strategies that they used most to teach comprehension they rated their use of direct oral questioning of students as the highest and teacher modelling strategies for comprehension as very low. This would be replicated in many classrooms and is probably a contributing influence on students reading to get a correct answer at the end of the reading, rather than formulating questions for themselves before and during reading. Helping students monitor their thinking as they read assists them to stay on top of the meaning and not come to the end of the reading with no clue about what it has been about. Therefore, what is done implicitly by good readers needs to be demonstrated explicitly so that students are not only able to hear and practise the questions that are a part of their inner conversation while reading a text, but are also able to apply this strategy independently in other contexts.

The questioning strategy can be used in several ways to support comprehension. Harvey & Goudvis (2007) explain that it can be used as a self monitoring device that alerts the reader to confusions and loss of meaning. The authors suggest that by using the questioning strategy to conduct an inner conversation with the text, readers listen to the voice in their head as they read and this allows them to construct meaning and notice when there's a problem and to repair it. They add that it is easier for readers to be proactive and construct meaning as they read rather than have to go back, reread and salvage meaning. Secondly, the questioning strategy can give the reading purpose. When readers use the questioning strategy as part of the inner conversation, they are less likely to abandon the text. Questions posed before and during reading help to give purpose to the reading and assist the reader to remain focused and avoid the 'phase out' that can sometimes occur during reading when focus is lost momentarily. Thirdly, the questioning strategy helps to give purpose to the reading and to propel the reader to find out more. It is therefore important that the questioning become embedded as a self regulatory strategy that students can employ automatically to enable them to make meaning from texts.

This study aims to examine the effects of teaching the questioning strategy to a small group of Year 3 students, with a particular focus on supporting students to conduct an inner conversation with the text, to formulate questions which will help them to frame their thinking as they read and improve their comprehension. Parker & Hurry (2007) cited research by (Palinscar and Brown, 1984) and (Rosenshine *et al* 1996) that examined intervention strategies which explicitly taught children to generate questions about text and

found that teaching children to question text is an effective tool for improving comprehension.

At the end of the intervention it will be evident that students are using the questioning strategy effectively when they;

- o Stop to think about their reading and record their questions
- o Monitor their understanding and stop and ask questions when they are confused
- o Read with a question in mind and note when they find information that answers it
- o Ask inferential and interpretative questions that encourage discussion and debate (Harvey & Goudvis , 2007)

Underpinning this study is also the need to research the body of knowledge around the questioning reading strategy and to inform and equip a professional collegiate of teachers within the school to become more skilled in the teaching of comprehension. The present investigation aims to extend present collective knowledge about teaching comprehension strategies and to seek and refine ways to improve the teaching of comprehension in the school, especially in the middle years of primary school.

Prediction

Explicitly teaching Year 3 students to conduct an inner conversation with the text, by using a questioning strategy before, during and after reading, frames the thinking that improves comprehension.

Practice of control and management strategies before, during and after reading activates metacognition and builds an awareness of how and when to use strategies to comprehend

Method

Design

This study used a case study OXO design. Improvements in reading comprehension, following explicit teaching in the use of a questioning strategy to conduct a conversation with the text, were monitored for Year 3 students. The study compared two groups of students, a control group and an intervention group.

Both groups were pre-tested using the TORCH comprehension test, the BURT word test and the Metacomprehension Strategy Index. (Schmitt, 1990). Explicit teaching of the questioning strategy was then given to the intervention group, with during program progress monitored by using 'think charts,' which tracked the types of questions that students were using before, during and after reading. Both groups were then post tested using the TORCH, and Metacomprehension Strategy Index.

Participants

All the students who participated in this study are currently in Year 3 in a single sex school. They were all chosen from the same grade, with 8 students making up the intervention group and 8 students forming the control group. Each group was formed on the basis of their scores on the Torch test, which took place as part of the class pre-testing procedures for the beginning of the school year. Students were required to complete a cloze exercise, following reading of the text "Grasshoppers." Using the scores from this test, the control group and the intervention group were matched as closely as possible, so that each group had a spread of high, average and lower achieving students.

To confirm whether students had established competency in word recognition and decoding, the BURT word test was used. All students, with the exception of student 16 in the control group and student 8 in the intervention group, are competent at decoding text and have achieved an independent reading level. These two students are new to the school and have noticeable difficulties with decoding and comprehension. This has resulted in additional diagnostic testing and a further intervention program to address their difficulties. Student 1 and student 7 in the intervention group have previously participated in and been discontinued from reading recovery. Their progress over their years of schooling has been slower, but they have managed to reach reading benchmarks appropriate for their age. In discussion with the class teacher, it was noted that although most students performed well in standardised tests in relation to age equivalent stanines, it was observed that student awareness of the

comprehension strategies that can be used before, during and after reading was undeveloped and at this stage was not proving to be used efficiently by most students. It was apparent that students in this grade level required instruction in a process that scaffolded how they get their knowledge ready before reading, how they conduct the inner dialogue as they are reading and how they respond to the text after reading and store these ideas for further application. There are many skills that these students need to develop in order to self-manage their reading and this study proposes to address this through instruction in the questioning strategy.

The following data gives a profile of students in the study. It is noted that even though students have a good TORCH score, the Metacomprehension Strategy Index showed that awareness and/or use of reading strategies before, during and after reading was quite low.

Figure 1.

Name	Teaching/ Control Group	Age in MONTHS	ESB	Earlier Intevention?	Learning Difficulty	TORCH SCORE PRE	TORCH stanine PRE	BURT score PRE	BURT AEB	Meta comp Index score PRE (before reading) Total = 10	Meta comp Index score PRE (during reading) Total =10	Meta compr Index score PRE (after reading) Total =5	Meta compr TOTAL =25
student 1	T	107	Yes	Reading Recovery	No	61	9	67	10.04-10.10	6	5	2	13
student 2	T	104	Yes	no	No	54	9	60	9.06 – 10.00	6	3	1	10
student 3	T	97	Yes	no	No	48	8	79	12.0-12.07	3	4	0	7
student 4	T	111	Yes	no	No	41	7	79	12.01-12.07	3	3	3	9
student 5	T	92	Yes	no	auditory processing	36	6	89	12+	2	1	1	4
student 6	T	111	Yes	no	No	36	6	56	8.11-9.05	2	6	4	12
student 7	T	105	Yes	Reading Recovery	Speech therapy	34	6	47	8.01-8.07	2	2	2	6
student 8	T	96	Yes	new student	ERIK testing	31	4	38	7.04-7.10	5	4	0	9
student 9	C	99	Yes	no	No	54	9	71	10.10-11.04	4	3	1	8
student 10	C	90	Yes	no	No	54	9	92	12+	9	10	5	24
student 11	C	104	Yes	no	No	48	8	85	12+	4	1	1	6
student 12	C	101	Yes	no	No	41	7	80	12.03-12.09	8	5	2	15
student 13	C	99	Yes	no	No	44	7	76	11.07-12.03	5	4	3	12
student 14	C	101	Yes	no	No	34	6	82	12+	3	4	2	9
student 15	C	107	Yes	no	No	39	6	74	11.03-11.09	5	1	2	8
student 16	C	103	Yes	new student	ERIK tesing	0	0	25	6.03-6.09	4	1	3	8

Intervention Group	Control Group
Student 1	Student 9
Student 2	Student 10
Student 3	Student 11
Student 4	Student 12
Student 5	Student 13
Student 6	Student 14
Student 7	Student 15
Student 8	Student 16

Materials

- o Tests (Appendix 1)
- TORCH Test "Grasshoppers" and "The Bear who Liked Hugging People"
- BURT Word Test
- Metacomprehension Strategy Index - a questionnaire to measure children's awareness of strategic reading processes. (Schmitt, 1990)
- o Student Journals - containing various proformas used by students during lessons to record the types of questions (literal, inferential and evaluative) that they generate before, during and after reading and a Prompt Chart to help students to articulate how they use the questioning strategy before, during and after reading to help them read. (Appendix 2)
- o Teaching Sequence – 10 lessons to provide instruction in developing the questioning strategy. (Appendix 3)
- o Sticky notes
- o Texts – Collection of texts from a variety of genres (specific titles included in Resources listing)

Procedure

1. All students were pre-tested using the following;
   - TORCH comprehension test "Grasshoppers"
   - BURT word test
   - Metacomprehension Strategy Index – a questionnaire to measure children's awareness of strategic reading processes before, during and after reading. (Schmitt, 1990)

This enabled information to be gathered about the comprehension levels of the students and it provided the basis for selecting and matching students in the control and intervention groups. The BURT word test was administered so that it could be determined whether word recognition and decoding skills were automatic enough for students to focus beyond the word level to higher order comprehension skills. The Metacomprehension Strategy Index (Schmitt, 1990) was conducted so that children's awareness of strategic reading processes could be measured. Students were directed to think about the kinds of things they can do to understand a story better before, during and after they read. Ten questions about before reading, ten questions about during reading and five questions about after reading were read aloud by the teacher and each student selected from four choices a description of what they thought helped them the most.

Assessment using the MSI gave information about the students' awareness of a variety of metacomprehension strategies that cover the following six categories:

- o <u>Predicting and Verifying</u>: Predicting the content of the story promotes active comprehension by giving readers a purpose for reading.

- o <u>Previewing</u>: Facilitating comprehension by activating background knowledge and providing information for making predictions.

- o <u>Purpose Setting</u>: promoting active, strategic reading.

- o <u>Self Questioning</u>: generating questions to be answered promotes active comprehension by giving readers a purpose for reading.

- o <u>Drawing from Background Knowledge</u>: Activating and incorporating background knowledge contributes to comprehension by helping readers make predictions and generate predictions.

- o <u>Summarising and Applying Fix-up Strategies</u>: Summarising the content at various points in the story serves as a form of comprehension monitoring. Re reading or suspending judgement and reading on when comprehension breaks down represents strategic reading. (Schmitt, 1990)

The MSI provided data on how each reader in both the control and the intervention group, used metacognitive knowledge to manage the reading and make meaning. This information was compiled and mapped for each student so that there was a profile of what metacomprehension strategies were used before, during and after reading. For their daily lessons, students were provided with journals that included 'prompt charts' containing listed statements about what readers do before, during and after reading. These 'prompt charts' were revisited at the end of each lesson and became part of the language of the self script that the students were developing as part of their metacognitive knowledge. Questions that framed the thinking as they read were not just on the content of the text, but also on the metacognitive knowledge used to manage reading a text.

2. Over a three week period the intervention group was withdrawn and participated in ten lessons of 50 minutes duration. These lessons were conducted in a separate room from their usual classroom and were timetabled to take place when the rest of the class (the control group) would be involved in a different literacy activity with their classroom teacher. The lessons were designed based on a model of teaching students to conduct an inner conversation using the questioning strategy, developed by (Harvey & Goudvis, 2007)

The lessons addressed the Self Management and Control Strategies, as well as elements of the Sentence, Conceptual and Topic levels of the (MLOTP) multiple levels of processing text model. (Munro, 2005) A detailed description of the lesson sequence is included in (Appendix 5)

Overview of the lesson sequence

Session	Goal	Teaching Strategy	Learning Activities
1	To demonstrate and develop the inner conversation readers have with the text as they read. To teach readers to use this inner conversation to help them to read strategically by asking questions before, during and after reading. To identify that there are different types of questions; literal, inferential and evaluative and that we can locate answers to them in different ways.	*Teacher Modelling* *The teacher explains the strategy* *The teacher models how to effectively use the strategy to understand the text* *The teacher thinks aloud when reading to show thinking and strategy use*	Using the 'Read To' strategy the students will listen to the story "Hannah" by Josephine Croser and the inner conversation that readers have with the text will be demonstrated by the teacher. Orienting the text – formulating questions before we hear the story and activating prior knowledge Listing questions before and during reading. Marking questions as they occur in the text by using sticky tabs Locating in the text where some questions were answered. Discuss questions. Discussing that our questions can be literal, inferential or evaluative and require us to locate answers in different ways. Formulating their own questions during the reading and developing an awareness of their inner conversation with the text.
2	To practise the inner conversation readers have with the text by thinking aloud and showing the questions that readers have as they read. To list the questions we have and to categorise them according to how they can be answered (in the text, using background knowledge, inferred from the text, through discussion, further research)	*Guided Practice* *The teacher and students practise the strategy together in a shared reading context, reasoning through the text and co-constructing meaning through discussion* *The teacher scaffolds the students' attempts and supports their thinking giving specific feedback and making sure that students understand the task.*	Orientation of the picture book " The Stranger" by Chris Van Allsburg Activate prior knowledge Using the picture book the students will listen to the story and at pause points in the text will show evidence of their inner conversation by articulating the questions they have. Marking questions with sticky tabs as they occur in the text. Listing questions Discussing the types of questions Categorising how these questions can be answered. Repeat the strategy on the text "Snookle" by Paul Jennings **Review of Self Management Strategies** Using the Prompt Chart the students will articulate the strategies they used before, during and after reading to help them understand the text.

Session	Goal	Teaching Strategy	Learning Activities
3	To practise the inner conversation readers have with the text by using the questioning strategy to stop, think and form 'I wonder' questions before, during and after reading.	*Guided Practice* *The teacher and students practise the strategy together in a shared reading context, reasoning through the text and co-constructing meaning through discussion* *The teacher scaffolds the students' attempts and supports their thinking giving specific feedback and making sure that students understand the task.* *Collaborative Practice* *Students share their thinking processes with each other during paired reading conversations* *The teacher moves from pair to pair assessing and responding to student's needs.*	Orientation of the picture book "The Wretched Stone" by Chris Van Allsburg. Activate prior knowledge. Formulating 'I Wonder' questions before we read. Pausing at different points in the story and marking questions with sticky tabs Listing questions and discussing how these can be answered. In pairs the students read "UFOS" and "Strange Lights in the Sky". They formulate their questions and write them on the "I wonder' charts, along with answers as they are found in the text. They discuss their questions with their partner and how the questions would be answered. **Review of Self Management Strategies** Using the Prompt Chart the students will articulate the strategies they used before, during and after reading to help them understand the text.
4	To practise the inner conversation readers have with the text by using the questioning strategy to stop, think and form 'I wonder' questions before, during and after reading. To use questions to set a purpose for the reading.	*Guided Practice* *The teacher and students practise the strategy together in a shared reading context, reasoning through the text and co-constructing meaning through discussion* *The teacher scaffolds the students' attempts and supports their thinking giving specific feedback and making sure that students understand the task.* *Collaborative Practice* *Students share their thinking processes with each other during paired reading conversations* *The teacher moves from pair to pair assessing and responding to student's needs.*	Before reading "Titanic" orient the text and activate prior knowledge. Formulate 'I wonder' questions before reading. Use these questions to set a purpose for the reading. Pause and discuss when these questions are answered. Mark questions in the text using sticky tabs. List the questions. Discuss questions and how they can be answered. In pairs students read "Crushed By Nature" by Casey Byron. Before, during and after reading articulate and write 'I wonder' questions and locate answers / discuss how questions can be answered. **Review of Self Management Strategies** Using the Prompt Chart the students will articulate the strategies they used before, during and after reading to help them understand the text.

Session	Goal	Teaching Strategy	Learning Activities
5	To read strategically to answer a specific question To use questions to set a purpose for the reading.	*Guided Practice* *The teacher and students practise the strategy together in a shared reading context, reasoning through the text and co-constructing meaning through discussion* *The teacher scaffolds the students' attempts and supports their thinking giving specific feedback and making sure that students understand the task.* *Collaborative Practice* *Students share their thinking processes with each other during paired reading conversations* *The teacher moves from pair to pair assessing and responding to student's needs.*	Using the shared reading strategy orient the text "Clouded Leopard" by James Laurie. Formulate questions before reading or early in the text that will set a purpose for the reading. Mark questions in the text using sticky tabs and then list the questions. Discuss how these questions will be answered. In pairs read "Nearly or Surely Gone" by Tom Pipher. Students formulate a question that will set a purpose for the reading. Students mark and record their questions before, during and after reading. **Review of Self Management Strategies** Using the Prompt Chart the students will articulate the strategies they used before, during and after reading to help them understand the text.
6	To read strategically to answer a specific question	*Guided Practice* *The teacher and students practise the strategy together in a shared reading context, reasoning through the text and co-constructing meaning through discussion* *The teacher scaffolds the students' attempts and supports their thinking giving specific feedback and making sure that students understand the task.* *Independent Practice* *After working with the teacher and with other students, the students try practising the strategy on their own* *The students receive regular feedback from the teacher and other students.*	Using the shared reading strategy orient the text "Fabulous and Ferocious" by Michele Paul. Activate prior knowledge and set a specific question that will set a purpose for the reading. Mark, list and record the before, during and after questions. Discuss how these will be answered. On their own students will practise the strategy of reading strategically to answer a specific question "Legend of the Venus Fly Trap" **By Tracey Reeder Review of Self Management Strategies** Using the Prompt Chart the students will articulate the strategies they used before, during and after reading to help them understand the text.
7	To respond to beyond-the-line questions	*Guided Practice* *The teacher and students practise the strategy together in a shared reading context, reasoning through the text and co-constructing meaning through discussion* *The teacher scaffolds the students' attempts and supports their thinking giving specific feedback and making sure that students understand the task.* *Independent Practice* *After working with the teacher and with other students, the students try practising the strategy on their own* *The students receive regular feedback from the teacher and other students.*	Introduce this strategy using the picture book "Fox" by G.Wild. Using the shared reading strategy orient the text "Sarah Plain and Tall" a short novel by Patricia Maclachlan. Activate prior knowledge. Formulate questions before, during and after reading. Focus on inferential and evaluative questions. Students continue the next chapter of the novel on their own, practising the strategy of marking and listing their questions. Discuss together. **Review of Self Management Strategies** Using the Prompt Chart the students will articulate the strategies they used before, during and after reading to help them understand the text.

Session	Goal	Teaching Strategy	Learning Activities
8	To respond to beyond-the-line questions	*Guided Practice* *The teacher and students practise the strategy together in a shared reading context, reasoning through the text and co-constructing meaning through discussion* *The teacher scaffolds the students' attempts and supports their thinking giving specific feedback and making sure that students understand the task.* *Independent Practice* *After working with the teacher and with other students, the students try practising the strategy on their own* *The students receive regular feedback from the teacher and other students.*	Continue the next chapters with the short novel "Sarah Plain and Tall" following the same procedure of forming questions, marking them, listing them and discussing how they can be answered. Students continue the next chapter on their own, practising the strategy of formulating, marking, listing and discussing questions. **Review of Self Management Strategies** Using the Prompt Chart the students will articulate the strategies they used before, during and after reading to help them understand the text.
9	To independently use the question strategy on text	*Independent Practice* *After working with the teacher and with other students, the students try practising the strategy on their own* *The students receive regular feedback from the teacher and other students.*	Using online texts from Ziptales and assorted Level 30+ Macmillan Springboards texts the students will use questioning to read strategically. **Review of Self Management Strategies** Using the Prompt Chart the students will articulate the strategies they used before, during and after reading to help them understand the text.
10	To independently use the question strategy on text	*Independent Practice* *After working with the teacher and with other students, the students try practising the strategy on their own* *The students receive regular feedback from the teacher and other students.*	Using online texts from Ziptales and assorted Level 30+ Macmillan Springboards texts the students will use questioning to read strategically. **Review of Self Management Strategies** Using the Prompt Chart the students will articulate the strategies they used before, during and after reading to help them understand the text.

The strategy of questioning was first modelled by the teacher in the introductory lesson and then reinforcement for the skill involved guided practice where the teacher and students worked together. By lesson 3 and 4 practice was provided in the form of guided and collaborative practice. This allowed the students the opportunity to have practice supported by the teacher, then to have the opportunity to work in pairs to try out their skills. In the later lesson students were comfortable enough with using the strategy of questioning to work independently. Over the series of lessons gradual control of using the questioning strategy

was passed to the students. The expectation is that the questioning strategy requires time and opportunity to refine, but that students would use it every time they read.

Because the questioning used in inner conversations is difficult to observe and evaluate, students were asked during some of the lessons to record on the 'think charts' in their student journals, the questions that they posed before, during and after reading. As a written record of their thinking these journal entries formed the basis of assessment to decide whether students were improving their thinking as the lessons progressed. After each lesson the number of literal, inferential, and evaluative questions that each student formulated during the reading activity was counted. The questions were tabulated so that comparisons between students could be made and so that the quality of the students' questions could be quantified.

The teaching sequence used in this study was modelled on (VanGorder, 2003) who experimented with presenting the specific reading strategy of questioning, rather than instruction in many reading strategies. She arrived at the decision to focus specifically on questioning the text as a strategy for reading success because she felt that previously she had been trying to teach her students too many skills and because of this they were finding it difficult to identify anything they had learned well. By having ten lessons that constantly modelled and reinforced the use of questioning, students were able to give their attention to a specific skill and were not overwhelmed by having to try too many new things.

During the introduction to using questioning to read strategically, students were asked to focus on my questioning and not to worry about generating questions of their own. As the questioning strategy was modelled, they were asked to observe the types of questions a reader asks and the types of responses the questions prompted. During the early lessons the goal was to show the students how a reader questioned the text. Initially they were observers, but later they became active participants and I became the observer. The use of the sticky tabs to record questions kept track of the students' thinking as they read, without interrupting the flow of the text. After the reading the questions were used to support the connections the students had made to the text. Texts chosen for the lessons were selected because of the way they stimulated the reader to question. All material was at an easy level for students to manage independently, with the selection being comprised of short stories, picture books, a short novel and a variety of informational material.

3. All students were post-tested using the following;
   - TORCH comprehension test " The Bear Who Liked Hugging People"
   - Metacomprehension Strategy Index – a questionnaire to measure children's awareness of strategic reading processes. (Schmitt, 1990)
   - Analyses of Prompt Charts and 'think charts' in the Student Journals.

In both the control and the intervention group, the TORCH test was used to determine if there was any change in comprehension scores. Both the control and intervention scores were graphed so that comparisons could be made and to see whether the intervention had impacted on comprehension levels of the intervention group.

The Metacomprehension Strategy Index was administered again to measure if there was any improvement in the awareness and use of strategic reading processes before, during and after reading. The scores were added to the mapping of the metacomprehension strategies that had been done at the beginning of the intervention and which profiled each student. This gave detailed information about the strategies used and at what time of the reading they were used.

For anecdotal evidence the literal, inferential and evaluative questions that the students posed during the lessons and recorded in their student journals were quantified in a table for analysis.

Results

Results indicate support for the hypothesis, that teaching Year 3 students to conduct an inner conversation with the text by using a questioning strategy before, during and after reading, frames the thinking that improves comprehension. The TORCH results show a trend for improvement in comprehension for both the intervention and control groups with 6/8 students in the intervention group and 6/8 students in the control group showing improvement (Appendix 4, Figure 2 and 3). Gains made by the intervention students were greater than those of the control group as shown through the comparison of the pre and post-testing scores (Figure 4). Findings in this study showed that use of the questioning strategy was positively associated with students' comprehension.

Figure 2

Pretest / Post test TORCH results

Figure 3

Pretest / Post test TORCH Results
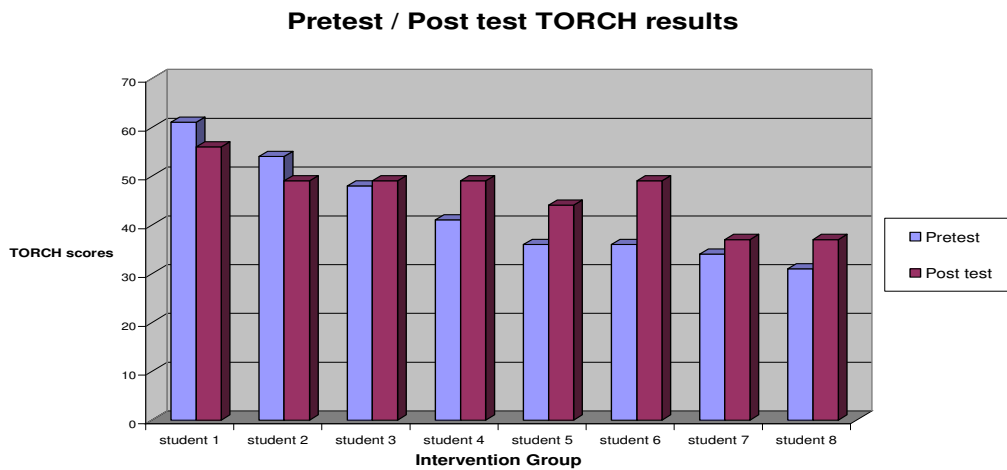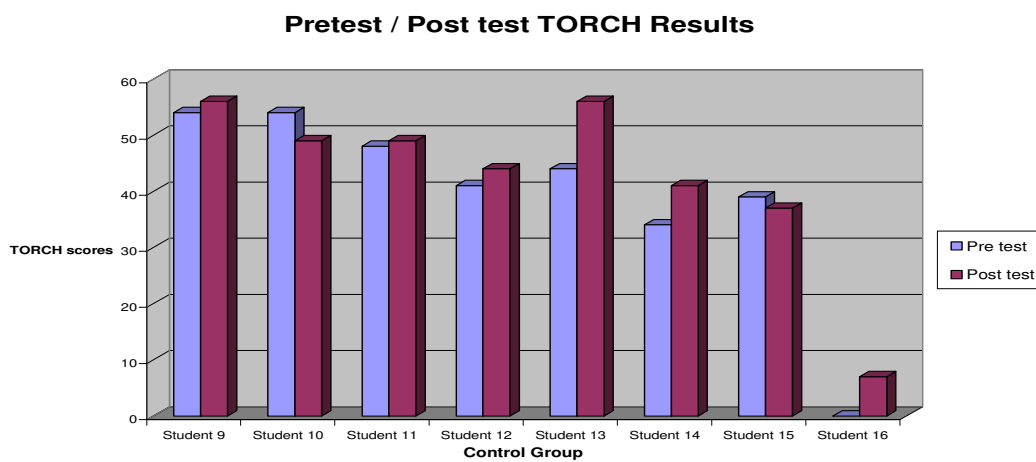
Comparison of TORCH Results

Two students in the intervention group achieved a lower score in the post test, as did two students in the control group. With both groups consisting of matched students of high, average and lower reading ability there would be an expectation of this spread of scores, with those students who have difficulty with comprehension being present in both groups. Figure 4 shows that despite the students being matched according to high, average and lower comprehension ability, the students in the intervention group made overall greater gains in achieving comprehension levels. It should be noted that the lowest achieving students in both groups (student 8 and student 16) were identified at the outset of the study as students who have difficulty with decoding and who mainly work at the word level when processing text. Student 8 was challenged by the level of reading during the intervention but was able to engage with the questioning strategy and demonstrated competence in showing the questioning strategy during oral activities during the lessons. Although a very slow processor of text she was able to achieve an improvement of 31 to 37 between pre and post testing. Student 5 , who has been identified as have auditory processing difficulties found it very challenging to articulate the questions she had about the text during the lessons, but was still

able to achieve a 6 point gain in her post test score. The following (Table 1) shows the pre and post scores for both groups.

Table 1

Torch score	Student 1	Student 2	Student 3	Student 4	Student 5	Student 6	Student 7	Student 8
PRE test	61	54	48	41	36	36	34	31
POST test	56	49	49	49	44	49	37	37
	Student 9	Student 10	Student 11	Student 12	Student 13	Student 14	Student 15	Student 16
PRE test	54	54	48	41	44	34	39	0
POST test	56	49	49	44	56	41	37	7

Figure 4
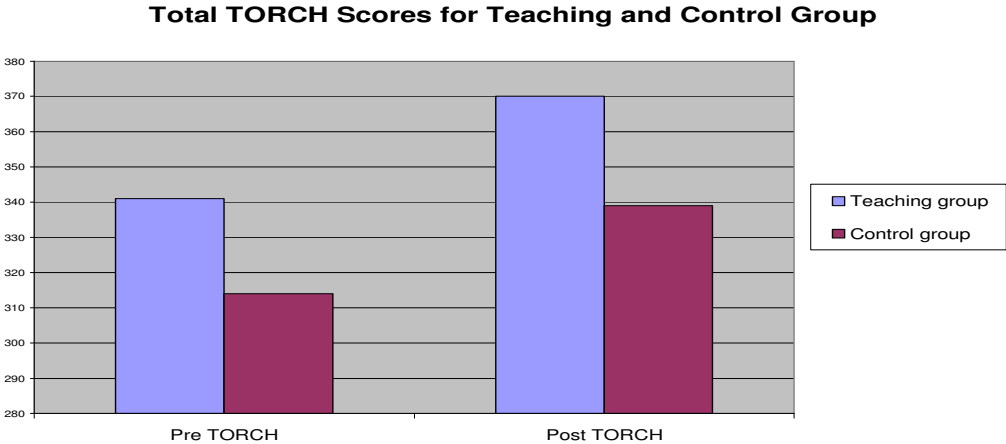
Total TORCH Scores for Teaching and Control Group

Gains made by the intervention students were greater than those of the control group as shown through the comparison of the pre and post-testing scores (Figure 4).

The improvements in the post test TORCH (Figure 3) and the post Metacomprehension Index
(Figure 9) of the students in the control group can possibly be attributed to the good teaching they have been exposed to in their own classroom program. These students have been taught to use before, during and after reading strategies to help them manage the way they read texts. Even though the questioning strategy had not been explicitly taught to them, the focus of their classroom instruction in using management and control strategies has led to improvements in their comprehension levels. Improvements for the control group could not be attributed to instruction in the questioning strategy, but it is evident that other quality instruction was having an impact on comprehension.

Improvements in the Types of Questions Posed During Lesson Sequence

Figure 5

Improvement in the types of questions posed during lessons

Student 1

Figure 6

Improvement in the types of questions posed during lessons
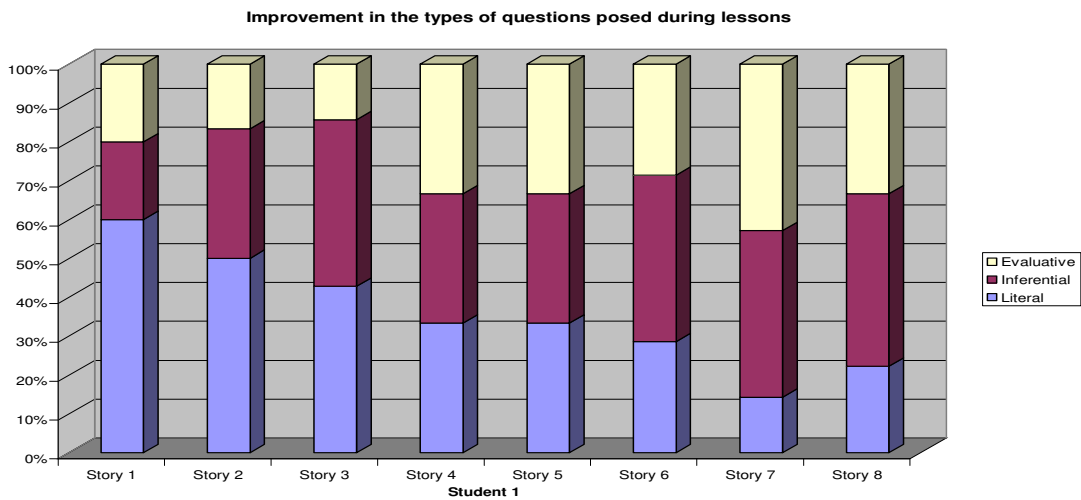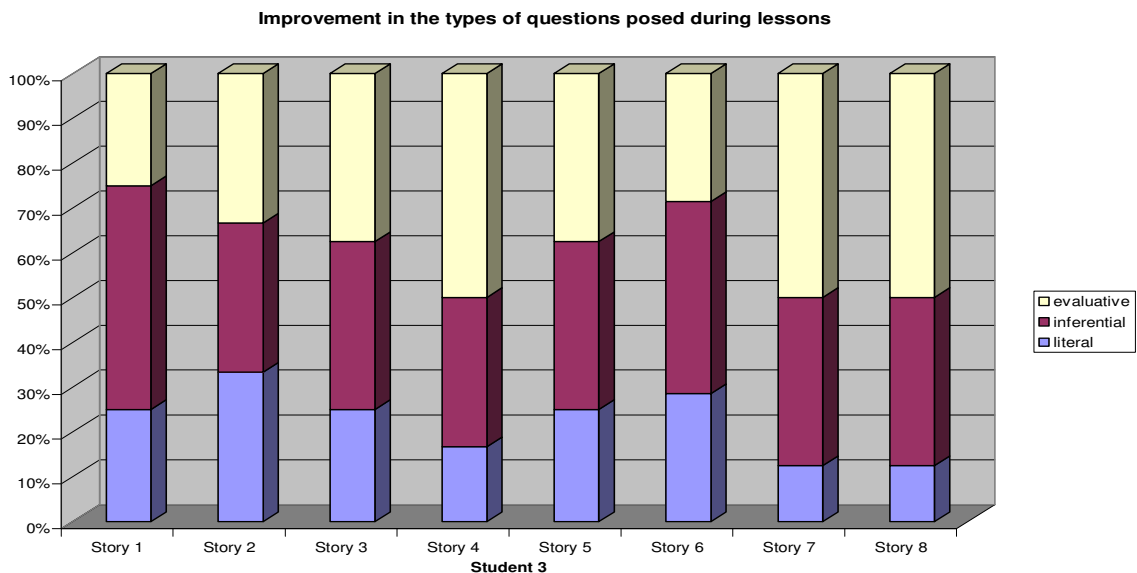
Student 3

As a way to observe the types of questions that the students were posing as part of the inner conversation that they were conducting with the texts, the students in the intervention group recorded questions in their student journals during the teaching sequence. These questions were analysed to see if there was a shift from the literal questions that students pose for themselves, to more complex inferential and evaluative questions. (Appendix 4) shows the graphs for each student's progress. As a sample of the changes that took place in the types of questions that the students posed (Figure 5 and Figure 6) show a sample of the improvements for students 1 and 3. As the teaching sequence progressed students were more comfortable with posing questions that led them to deeper understanding rather than only posing questions where the answer could be located directly in the text. They became aware that it was not only the words on the page, but also their thinking about the message behind the words that helped them to understand what the text was about.

Figure 6

Mapping of Metacomprehension Strategies Used *before, during and after reading*

Student 1

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1 **18**	15	23	**2** 3 4 9 **10**	**13** **16**		**5** **7**	14	**21**	6	17	**25**	**8**		24		**11** **12** 19 20	22
Post test																	
1 18	15	23	**2** 3 **4** **9** **10**	13 16		5 7	14	**21**	6	17	25	8		24		**11** 12 19 20	22
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before D = during A = after   Total of strategies used before - pre test = 6/10 post test = 4/10

Total of strategies used during – pretest = 5/10   post test = 1/10

Total of strategies used after – pretest = 2/5   post test = 1/5

TOTAL=13 /25   TOTAL = 6/25 **no improvement**

Figure 7

Student 3

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1 18	15	23	2 **3** 4 9 10	**13** 16		**5** **7**	14	21	**6**	**17**	25	8		24		**11** **12** 19 20	22
Post test																	
1 18	15	23	**2** **3** 4 **9** **10**	13 16		5 7	**14**	21	**6**	17	**25**	8		**24**		11 **12** 19 **20**	22
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before D = during A = after   Total of strategies used before – pretest 3/10 post test 5/10

Total of strategies used during – pretest 4/10 post test3/10

Total of strategies used after – pretest 0/5 post test 2/5

TOTAL= 7/25 TOTAL= 10/25 *improvement*

<u>Comparison of Metacomprehension Strategies Used by Control and Intervention Group</u>

(Appendix 4) shows the mapping of the metacomprehension strategies that the students in both groups used before, during and after reading to help them manage the reading of the text and to comprehend. (Figure 6 and Figure 7) show a sample of how the metacomprehension strategies were tracked. The numbers correspond to questions in the Metacomprehension Index, with their position showing the comprehension skill that is being used and whether it is used before, during or after reading.

Figure 8

Use of before, during and after reading strategies
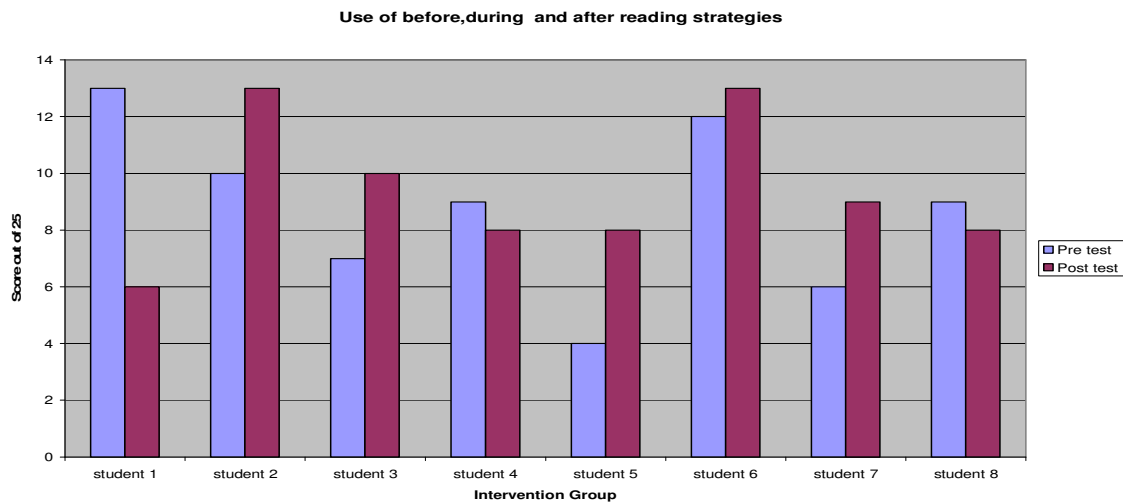
In the intervention group 5 students showed improvement in their use of before, during and after reading strategies. Students 1, 4 and 8 showed a lower score in the post test results. A caution comes with this type of assessment. Harvey (2001) cites research by Pearson (1995, p.26) who reminds teachers that "Just because readers say they are using a strategy to better understand what they read doesn't necessarily mean that they are. And conversely, just because students do not articulate the thinking behind the strategy doesn't mean they aren't using it to better understand what they read." Teachers determine whether readers are using strategies to better comprehend, by having conversations with students about the reading, reading their written responses and observing them as they read.

Figure 9

Use of before, during and after reading strategies
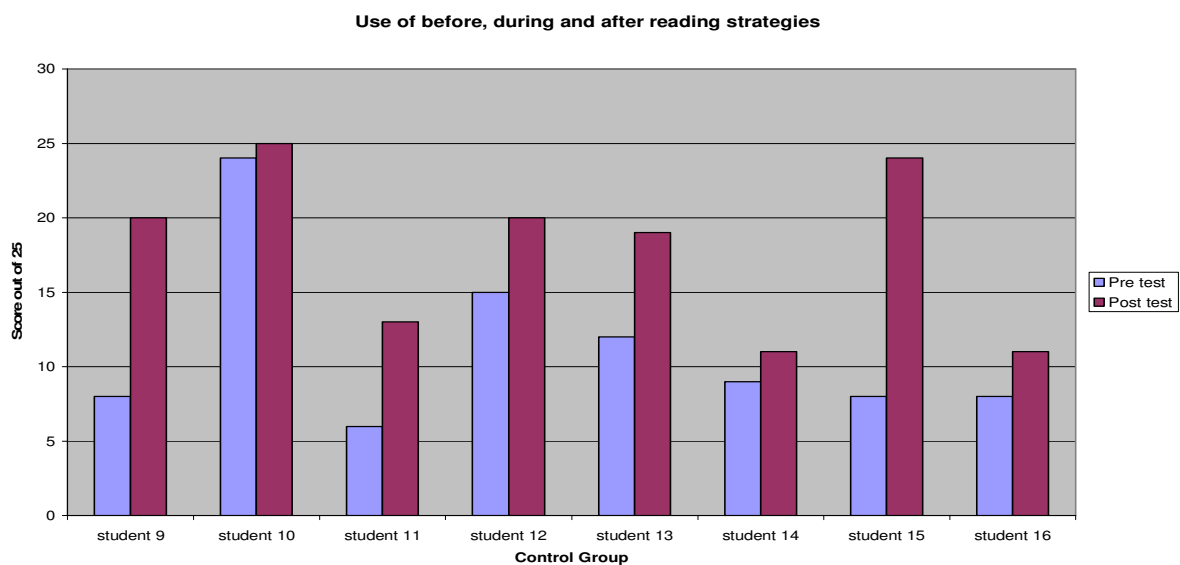
All students in the control group showed improvement in their use of before, during and after reading strategies. This can possibly be attributed to explicit teaching as part of the classroom program.

Summary of Trends

- Results from the post test TORCH test show that 6/8 students in the intervention group and 6/8 students in the control group improved in their comprehension scores. The greater increase was evident in the intervention group.
- The weakest students (student 8 in the intervention group and student 16 in the control group) both showed improvement, with comparative improvement being greater for student 8)
- Two students in each of the groups achieved lower scores in the post test TORCH.

- Anecdotal evidence of the types of questions that students in the intervention group posed during the lessons showed progression from a higher number of literal questions at the beginning of the intervention to a greater number of inferential and evaluative questions towards the end of the intervention. This suggests that these students were beginning to engage with the texts and frame their thinking using more complex questions.

- The Metacomprehension Strategy Index showed greater gains for the control group with the strategies that students use to manage their reading before, during and after showing significant gains. (Student 9, 11, 12, 15) This trend may be attributed to the focus of the classroom teaching program, but it also highlights that the students in the intervention group only showed minimal gains and in the case of student 1, 4, and 8 lower than the pre test scores. Even though there is a caution with this type of measurement, it does suggest that knowledge of the strategies to use before, during and after reading are not firm with some students. Especially students 5 and 7 who had low knowledge of strategy use at the beginning and end of the intervention.

Table 2

MSI	**Student 1**	**Student 2**	**Student 3**	**Student 4**	**Student 5**	**Student 6**	**Student 7**	**Student 8**
Pre test	13	10	7	9	4	12	6	9
Post test	6	13	10	8	8	13	9	8
	Student 9	**Student 10**	**Student 11**	**Student 12**	**Student 13**	**Student 14**	**Student 15**	**Student 16**
Pre test	8	24	6	15	12	9	8	8
Post test	20	25	13	20	19	11	24	11

Discussion

In reflecting on the results of this study there is support for the hypothesis which suggests that explicit instruction in the development of an inner conversation with the text through the use of questioning before, during and after reading, helped to frame the thinking and improve comprehension. Students improved in the use of questioning to read strategically, with this skill being positively associated with improvement in their reading comprehension. Even though the trends in the results are positive, the questioning strategy would need to be embedded in an instruction program and taught over a longer period of time to bring about significant and permanent change for all students.

The results lend support for the work of Hervey (2006), Harvey & Goudvis (2007), Litwiller Lloyd (2004), Taboada & Guthrie (2006) and (Munro, 2005) who suggest that explicit teaching of the skill of questioning as a comprehension strategy can work towards helping students construct meaning from a text , lead to thoughtful, engaged reading, build knowledge and develop insights. This was particularly demonstrated in the improvement in the comprehension scores of students 3,4,5,6,7 and 8 (Appendix 4, Figure 2).

During the teaching sessions it became apparent that a lot of the questions posed related to word meaning and unfamiliar phrases. Although this could be addressed within the focus of the study, of conducting an inner conversation through the use of questioning, it highlighted the need to include in future studies and programs, work on enriching vocabulary. At the beginning of the study they may have stopped when they came to an unfamiliar word, but I would like to suggest that the questioning strategy encouraged them to read on and use the context of the text to help them get an understanding of the unknown word. In other words to use the inferential skills they practised during the intervention and to use the words in the text and their own thoughts in order to understand.

Towards the end of the intervention the students were becoming more proficient in the quality of their questioning and were posing questions that went beyond the text. This encouraged students to go further and to find out more and in the case of student 1 and 7 led to them going to the internet for further information and answers about the Titanic. My observations of the students' oral questions led me to believe that there had been a shift from answering the teacher's questions to answering the questions that they posed for themselves. On reflection if this study was repeated I think I would simplify it even more. Over 10 lessons it was a lot to cover the inner conversation questions, the types of questions and the

questions that readers use to manage their reading. Even though the results show that the students in the intervention group showed progress across a range of questioning skills, I think the program would be better paced if it became part of guided reading instruction over 6 to 8 weeks.

Implications for teaching practice

The implication for teaching practice is that if programs are to encourage and instruct students to be active learners, who are inquisitive and curious and who compose and answer their own questions and play an initiating role in their own learning process, it is important to recognise the influence that questioning has on the reading comprehension process and to include explicit teaching of the questioning strategy as an essential part of reading comprehension instruction.

In examining the link between this investigation and other research, it was found that questions need to be authentic whether posed by teachers or students. Questions that frame the inner conversation need to be modelled by the teacher firstly, but then every opportunity should be provided for students to practise aloud the questions that frame their thinking as they read. Harvey& Goudvis (2007, p. 124) state that the use of the questioning strategy is beneficial in helping students to comprehend when questions;

  o Prompt thinking
  o Don't always have a right answer
  o May have many answers
  o Cause us to ponder and wonder
  o Dispel and clarify confusion
  o Challenge us to rethink our opinions
  o Lead us to seek out further information
  o Are subject to discussion, debate and conversation
  o May require further research

The selection of interesting texts is very important when teaching the questioning strategy as they need to be short, interesting, and appropriate for the level of the students' reading ability and be the type of text (fiction and non fiction) that stimulate questions.

The current investigation demonstrated and practised conducting an inner conversation with the text by using a questioning strategy before, during and after reading. This supported the

students to frame their thinking as they read: to read strategically not just in the way they thought through the content of the text, but also how they controlled and managed their reading as they read it. The inner conversation with the text, referred to by authors Harvey & Goudvis (2007) is essential to teaching students to think as they read and to use reading strategies flexibly to enhance understanding. They outline that we teach readers to;

- o Become aware of their thinking as they read
- o Monitor their understanding and keep track of meaning
- o Listen to the voice in their heads to make sense of the text
- o Notice when they stray from thinking about the text
- o Notice when meaning breaks down
- o Detect obstacles and confusions that derail understanding
- o Understand how a variety of strategies can help them repair meaning when it breaks down
- o Know when, why and how to apply specific strategies to maintain further understanding.

From this investigation a body of knowledge has been compiled from the research which will inform the future direction and content of programs that teach comprehension strategies in the middle years of our school. In particular the text Strategies That Work by Harvey and Goudvis will be included as a reference to inform the teaching sequence for comprehension skills. (Appendix 5) also contains work by Fountas & Pinnell (2001) which supports the scripting of the thoughts that might come to mind as part of the inner conversation as readers read.

As quoted in Harvey (2007, p. 18) children's writer Madeline L'Engle says "Readers sometimes grossly underestimate their own importance. This is particularly true of less experienced readers. As developing readers realize their inner conversation and begin to focus on their own thoughts and questions, reading takes on a new importance. When readers interact with the text by thinking about their questions, writing them down and pondering answers, they comprehend at a much deeper level. Classrooms change when readers begin to believe their thinking matters."

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Appendix 1

Testing Materials

Photocopied material not included in transmitted copy

Appendix 2

STUDENT JOURNAL

Lesson 1

As we read "Hannah", we asked lots of questions and tracked them on a chart. We discussed all of the questions, especially the unanswered ones.

Questions *before reading*	Answered	Not Answered
Questions *during reading*		
Questions *after reading*		

Where is the answer found?

3 Kinds of Questions

Type 1.   (Literal)
<u>**Right There**</u>
The answer is in the story.
It's right there for you to read.

Type 2.   (Inferential)
<u>**Think and Search**</u>
Search for the clues in the story and think about your answer

Type 3.   (Evaluative)
<u>**On My Own**</u>
The answer won't be told by words in the story.
You must find the answer in your head.

(Raphael, 1982)

THINK CHART

Lesson 2

As we read "The Stranger", we asked lots of questions and tracked them on a chart. We discussed all of the questions, especially the unanswered ones.

Questions *before reading*	Answered	Not Answered
Questions *during reading*		
Questions *after reading*		

We marked each question according to how we could answer the question.
Answer in the text - A
Using background knowledge - BK
Inferred from the text - I
Through discussion - D
Further research – FR
Confused - C

THINK CHART
Lesson 2

As we read "Snookle", we asked lots of questions and tracked them on a chart. We discussed all of the questions, especially the unanswered ones.

Questions *before reading*	Answered	Not Answered
Questions *during reading*		
Questions *after reading*		

We marked each question according to how we could answer the question.
Answer in the text - A
Using background knowledge - BK
Inferred from the text - I
Through discussion - D
Further research - FR

PROMPT CHART

Before I read
- *Make some predictions about what I think the story is about*
- *Look at the pictures to see what the story is about*
- *Read the title to see what the story is about*
- *Think about what I already know on this topic*
- *Make connections to what the story or topic reminds me of*
- *Use the title and the pictures to help me make guesses about what will happen in the story*
- *Decide on the purpose (why) I am reading the story*
- *Use the inner conversation I have with the text to help me understand what I am reading*
- *Ask myself questions that I would like to have answered in the story*
- *Ask myself 'I wonder' questions*
- *Use my questions and guesses as a reason for reading the story*
- *Think about what I already know about things I see in the pictures*
- *Think about what the people in the story might be like*
- *Think of where the story takes place*

While I read
- *Check to see if the story is making sense*
- *Stop to re tell the main points to see if I am understanding what has happened so far*
- *Keep thinking about the title and the pictures to help me decide what is going to happen*
- *Check to see if I can answer any of the questions that I asked before I started reading*
- *Check to see if my guesses are right or wrong*
- *Make a lot of guesses about what is going to happen next*
- *Try to answer the questions I asked myself*
- *Try to see if my guesses are going to be right or wrong*
- *Keep thinking of what I already know about the things and ideas in the story to help me decide what is going to happen*
- *If things aren't making sense re read some parts or read ahead to see if I can figure out what is happening*

After I read
- *Check to see if I met the purpose for reading the story*
- *Retell the main points of the whole story so that I can check to see if I understood it*
- *Think about what made me make good or bad predictions*
- *Think about how the story fits with things I already knew about before I read the story.*
- *Think about how I would have acted if I had been the main character in the story.*
- *Make connections to the story (text to self, text to text, text to the world)*
- *What new words were in the text*
- *Think about what I liked, disliked or found interesting*

Prompt list compiled from the Metacomprehension Strategy Index (Schmitt, 1990) and course notes (Munro, 2008)

Think Chart

Lesson 3
Question Generating Strategy

1. Preview the text "UFOs" and "Strange Lights in the Sky" by Ruth Devich
   Read title
   Look at the pictures
   Read the first paragraph

2. Think of an "I Wonder" question. Write it down.
   I wonder
   ....
   ....
   ....
   ....

3. Read to answer your question. Write the answer when you find it.
   ....
   ....
   ....
   ....

4. Ask yourself another "I wonder" question.
   I wonder
   ....
   ....
   ....
   ....

5. Read the next section to find the answer
   ....
   ....
   ....
   ....

6. Continue to ask an "I wonder" question and read the next section to find
   the answer
   I wonder
   ....
   ....
   ....
   ....

   Answer
   ....
   ....
   ....
   ....

Compiled from (Hoyt, 1999)

PROMPT CHART

Before I read
- *Make some predictions about what I think the story is about*
- *Look at the pictures to see what the story is about*
- *Read the title to see what the story is about*
- *Think about what I already know on this topic*
- *Make connections to what the story or topic reminds me of*
- *Use the title and the pictures to help me make guesses about what will happen in the story*
- *Decide on the purpose (why) I am reading the story*
- *Use the inner conversation I have with the text to help me understand what I am reading*
- *Ask myself questions that I would like to have answered in the story*
- *Ask myself 'I wonder' questions*
- *Use my questions and guesses as a reason for reading the story*
- *Think about what I already know about things I see in the pictures*
- *Think about what the people in the story might be like*
- *Think of where the story takes place*

While I read
- *Check to see if the story is making sense*
- *Stop to re tell the main points to see if I am understanding what has happened so far*
- *Keep thinking about the title and the pictures to help me decide what is going to happen*
- *Check to see if I can answer any of the questions that I asked before I started reading*
- *Check to see if my guesses are right or wrong*
- *Make a lot of guesses about what is going to happen next*
- *Try to answer the questions I asked myself*
- *Try to see if my guesses are going to be right or wrong*
- *Keep thinking of what I already know about the things and ideas in the story to help me decide what is going to happen*
- *If things aren't making sense re read some parts or read ahead to see if I can figure out what is happening*

After I read
- *Check to see if I met the purpose for reading the story*
- *Retell the main points of the whole story so that I can check to see if I understood it*
- *Think about what made me make good or bad predictions*
- *Think about how the story fits with things I already knew about before I read the story.*
- *Think about how I would have acted if I had been the main character in the story.*
- *Make connections to the story (text to self, text to text, text to the world)*
- *What new words were in the text*
- *Think about what I liked, disliked or found interesting*

Think Chart
Lesson 4
Question Generating Strategy

7. Preview the text "Crushed by Nature" by Casey Byron
   Read title
   Look at the pictures
   Read the first paragraph

8. Think of an "I Wonder" question. Write it down.
   I wonder
   ....
   ....
   ....
   ....

9. Read to answer your question. Write the answer when you find it.
   ....
   ....
   ....
   ....

10. Ask yourself another "I wonder" question.
    I wonder
    ....
    ....
    ....
    ....

11. Read the next section to find the answer
    ....
    ....
    ....
    ....

12. Continue to ask an "I wonder" question and read the next section to find
    the answer
    I wonder
    ....
    ....
    ....
    ....

    Answer
    ....
    ....
    ....
    ....

Compiled from (Hoyt, 1999)

PROMPT CHART

Before I read
- *Make some predictions about what I think the story is about*
- *Look at the pictures to see what the story is about*
- *Read the title to see what the story is about*
- *Think about what I already know on this topic*
- *Make connections to what the story or topic reminds me of*
- *Use the title and the pictures to help me make guesses about what will happen in the story*
- *Decide on the purpose (why) I am reading the story*
- *Use the inner conversation I have with the text to help me understand what I am reading*
- *Ask myself questions that I would like to have answered in the story*
- *Ask myself 'I wonder' questions*
- *Use my questions and guesses as a reason for reading the story*
- *Think about what I already know about things I see in the pictures*
- *Think about what the people in the story might be like*
- *Think of where the story takes place*

While I read
- *Check to see if the story is making sense*
- *Stop to re tell the main points to see if I am understanding what has happened so far*
- *Keep thinking about the title and the pictures to help me decide what is going to happen*
- *Check to see if I can answer any of the questions that I asked before I started reading*
- *Check to see if my guesses are right or wrong*
- *Make a lot of guesses about what is going to happen next*
- *Try to answer the questions I asked myself*
- *Try to see if my guesses are going to be right or wrong*
- *Keep thinking of what I already know about the things and ideas in the story to help me decide what is going to happen*
- *If things aren't making sense re read some parts or read ahead to see if I can figure out what is happening*

After I read
- *Check to see if I met the purpose for reading the story*
- *Retell the main points of the whole story so that I can check to see if I understood it*
- *Think about what made me make good or bad predictions*
- *Think about how the story fits with things I already knew about before I read the story.*
- *Think about how I would have acted if I had been the main character in the story.*
- *Make connections to the story (text to self, text to text, text to the world)*
- *What new words were in the text*
- *Think about what I liked, disliked or found interesting*

Think Chart

Lesson 5

Question Generating Strategy

13. Preview the text "Nearly or Surely Gone" by Tom Pipher
    Read title
    Look at the pictures
    Read the first paragraph

14. Think of a specific question. Write it down.

    ....
    ....
    ....
    ....

15. Read to answer your question. Write the answer when you find it.

    ....
    ....
    ....
    ....

16. Ask yourself another specific question

    ....
    ....
    ....
    ....

17. Read the next section to find the answer

    ....
    ....
    ....
    ....

18. Continue to ask a specific question and read the next section to find the answer

    ....
    ....
    ....
    ....

    Answer

    ....
    ....
    ....
    ....

    Compiled from (Hoyt, 1999)

PROMPT CHART

Before I read
- *Make some predictions about what I think the story is about*
- *Look at the pictures to see what the story is about*
- *Read the title to see what the story is about*
- *Think about what I already know on this topic*
- *Make connections to what the story or topic reminds me of*
- *Use the title and the pictures to help me make guesses about what will happen in the story*
- *Decide on the purpose (why) I am reading the story*
- *Use the inner conversation I have with the text to help me understand what I am reading*
- *Ask myself questions that I would like to have answered in the story*
- *Ask myself 'I wonder' questions*
- *Use my questions and guesses as a reason for reading the story*
- *Think about what I already know about things I see in the pictures*
- *Think about what the people in the story might be like*
- *Think of where the story takes place*

While I read
- *Check to see if the story is making sense*
- *Stop to re tell the main points to see if I am understanding what has happened so far*
- *Keep thinking about the title and the pictures to help me decide what is going to happen*
- *Check to see if I can answer any of the questions that I asked before I started reading*
- *Check to see if my guesses are right or wrong*
- *Make a lot of guesses about what is going to happen next*
- *Try to answer the questions I asked myself*
- *Try to see if my guesses are going to be right or wrong*
- *Keep thinking of what I already know about the things and ideas in the story to help me decide what is going to happen*
- *If things aren't making sense re read some parts or read ahead to see if I can figure out what is happening*

After I read
- *Check to see if I met the purpose for reading the story*
- *Retell the main points of the whole story so that I can check to see if I understood it*
- *Think about what made me make good or bad predictions*
- *Think about how the story fits with things I already knew about before I read the story.*
- *Think about how I would have acted if I had been the main character in the story.*
- *Make connections to the story (text to self, text to text, text to the world)*
- *What new words were in the text*
- *Think about what I liked, disliked or found interesting*

Prompt list compiled from the Metacomprehension Strategy Index (Schmitt, 1990) and course notes (Munro, 2008)

Think Chart

Lesson 6
Question Generating Strategy

19. Preview the text "The Legend of the Venus Fly Trap" by Tom Pipher
    Read title
    Look at the pictures
    Read the first paragraph

20. Think of a specific question. Write it down.

    ....
    ....
    ....
    ....

21. Read to answer your question. Write the answer when you find it.

    ....
    ....
    ....
    ....

22. Ask yourself another specific question.

    ....
    ....
    ....
    ....

23. Read the next section to find the answer

    ....
    ....
    ....
    ....

24. Continue to ask a specific question and read the next section to find the answer

    ....
    ....
    ....
    ....

    Answer
    ....
    ....
    ....
    ....

    Compiled from (Hoyt, 1999)

PROMPT CHART

Before I read
- *Make some predictions about what I think the story is about*
- *Look at the pictures to see what the story is about*
- *Read the title to see what the story is about*
- *Think about what I already know on this topic*
- *Make connections to what the story or topic reminds me of*
- *Use the title and the pictures to help me make guesses about what will happen in the story*
- *Decide on the purpose (why) I am reading the story*
- *Use the inner conversation I have with the text to help me understand what I am reading*
- *Ask myself questions that I would like to have answered in the story*
- *Ask myself 'I wonder' questions*
- *Use my questions and guesses as a reason for reading the story*
- *Think about what I already know about things I see in the pictures*
- *Think about what the people in the story might be like*
- *Think of where the story takes place*

While I read
- *Check to see if the story is making sense*
- *Stop to re tell the main points to see if I am understanding what has happened so far*
- *Keep thinking about the title and the pictures to help me decide what is going to happen*
- *Check to see if I can answer any of the questions that I asked before I started reading*
- *Check to see if my guesses are right or wrong*
- *Make a lot of guesses about what is going to happen next*
- *Try to answer the questions I asked myself*
- *Try to see if my guesses are going to be right or wrong*
- *Keep thinking of what I already know about the things and ideas in the story to help me decide what is going to happen*
- *If things aren't making sense re read some parts or read ahead to see if I can figure out what is happening*

After I read
- *Check to see if I met the purpose for reading the story*
- *Retell the main points of the whole story so that I can check to see if I understood it*
- *Think about what made me make good or bad predictions*
- *Think about how the story fits with things I already knew about before I read the story.*
- *Think about how I would have acted if I had been the main character in the story.*
- *Make connections to the story (text to self, text to text, text to the world)*
- *What new words were in the text*
- *Think about what I liked, disliked or found interesting*

Prompt list compiled from the Metacomprehension Strategy Index (Schmitt, 1990) and course notes (Munro, 2008)

THINK CHART

Lesson 7

As we read a chapter from the novel "Sarah Plain and Tall" by Patricia MacLachlan, we asked lots of questions and tracked them on a chart. We discussed all of the questions, especially the unanswered ones.

Questions *before reading*	Answered	Not Answered
Questions *during reading*		
Questions *after reading*		

We marked each question according to how we could answer the question.
Answer in the text - A
Using background knowledge - BK
Inferred from the text - I
Through discussion - D
Further research - FR

PROMPT CHART

Before I read
- *Make some predictions about what I think the story is about*
- *Look at the pictures to see what the story is about*
- *Read the title to see what the story is about*
- *Think about what I already know on this topic*
- *Make connections to what the story or topic reminds me of*
- *Use the title and the pictures to help me make guesses about what will happen in the story*
- *Decide on the purpose (why) I am reading the story*
- *Use the inner conversation I have with the text to help me understand what I am reading*
- *Ask myself questions that I would like to have answered in the story*
- *Ask myself 'I wonder' questions*
- *Use my questions and guesses as a reason for reading the story*
- *Think about what I already know about things I see in the pictures*
- *Think about what the people in the story might be like*
- *Think of where the story takes place*

While I read
- *Check to see if the story is making sense*
- *Stop to re tell the main points to see if I am understanding what has happened so far*
- *Keep thinking about the title and the pictures to help me decide what is going to happen*
- *Check to see if I can answer any of the questions that I asked before I started reading*
- *Check to see if my guesses are right or wrong*
- *Make a lot of guesses about what is going to happen next*
- *Try to answer the questions I asked myself*
- *Try to see if my guesses are going to be right or wrong*
- *Keep thinking of what I already know about the things and ideas in the story to help me decide what is going to happen*
- *If things aren't making sense re read some parts or read ahead to see if I can figure out what is happening*

After I read
- *Check to see if I met the purpose for reading the story*
- *Retell the main points of the whole story so that I can check to see if I understood it*
- *Think about what made me make good or bad predictions*
- *Think about how the story fits with things I already knew about before I read the story.*
- *Think about how I would have acted if I had been the main character in the story.*
- *Make connections to the story (text to self, text to text, text to the world)*
- *What new words were in the text*
- *Think about what I liked, disliked or found interesting*

Prompt list compiled from the Metacomprehension Strategy Index (Schmitt, 1990) and course notes (Munro, 2008)

THINK CHART

Lesson 8

As we read a chapter from the novel "Sarah Plain and Tall" by Patricia MacLachlan", we asked lots of questions and tracked them on a chart. We discussed all of the questions, especially the unanswered ones.

Questions *before reading*	Answered	Not Answered
Questions *during reading*		
Questions *after reading*		

We marked each question according to how we could answer the question.

Answer in the text - A
Using background knowledge - BK
Inferred from the text - I
Through discussion - D
Further research - FR

PROMPT CHART

Before I read
- *Make some predictions about what I think the story is about*
- *Look at the pictures to see what the story is about*
- *Read the title to see what the story is about*
- *Think about what I already know on this topic*
- *Make connections to what the story or topic reminds me of*
- *Use the title and the pictures to help me make guesses about what will happen in the story*
- *Decide on the purpose (why) I am reading the story*
- *Use the inner conversation I have with the text to help me understand what I am reading*
- *Ask myself questions that I would like to have answered in the story*
- *Ask myself 'I wonder' questions*
- *Use my questions and guesses as a reason for reading the story*
- *Think about what I already know about things I see in the pictures*
- *Think about what the people in the story might be like*
- *Think of where the story takes place*

While I read
- *Check to see if the story is making sense*
- *Stop to re tell the main points to see if I am understanding what has happened so far*
- *Keep thinking about the title and the pictures to help me decide what is going to happen*
- *Check to see if I can answer any of the questions that I asked before I started reading*
- *Check to see if my guesses are right or wrong*
- *Make a lot of guesses about what is going to happen next*
- *Try to answer the questions I asked myself*
- *Try to see if my guesses are going to be right or wrong*
- *Keep thinking of what I already know about the things and ideas in the story to help me decide what is going to happen*
- *If things aren't making sense re read some parts or read ahead to see if I can figure out what is happening*

After I read
- *Check to see if I met the purpose for reading the story*
- *Retell the main points of the whole story so that I can check to see if I understood it*
- *Think about what made me make good or bad predictions*
- *Think about how the story fits with things I already knew about before I read the story.*
- *Think about how I would have acted if I had been the main character in the story.*
- *Make connections to the story (text to self, text to text, text to the world)*
- *What new words were in the text*
- *Think about what I liked, disliked or found interesting*

Prompt list compiled from the Metacomprehension Strategy Index (Schmitt, 1990) and course notes (Munro, 2008)

THINK CHART

Lesson 9

We asked lots of questions and tracked them on a chart. We discussed all of the questions, especially the unanswered ones.

Questions *before reading*	Answered	Not Answered
Questions *during reading*		
Questions *after reading*		

We marked each question according to how we could answer the question.
Answer in the text - A
Using background knowledge - BK
Inferred from the text - I
Through discussion - D
Further research - FR

PROMPT CHART

Before I read
- *Make some predictions about what I think the story is about*
- *Look at the pictures to see what the story is about*
- *Read the title to see what the story is about*
- *Think about what I already know on this topic*
- *Make connections to what the story or topic reminds me of*
- *Use the title and the pictures to help me make guesses about what will happen in the story*
- *Decide on the purpose (why) I am reading the story*
- *Use the inner conversation I have with the text to help me understand what I am reading*
- *Ask myself questions that I would like to have answered in the story*
- *Ask myself 'I wonder' questions*
- *Use my questions and guesses as a reason for reading the story*
- *Think about what I already know about things I see in the pictures*
- *Think about what the people in the story might be like*
- *Think of where the story takes place*

While I read
- *Check to see if the story is making sense*
- *Stop to re tell the main points to see if I am understanding what has happened so far*
- *Keep thinking about the title and the pictures to help me decide what is going to happen*
- *Check to see if I can answer any of the questions that I asked before I started reading*
- *Check to see if my guesses are right or wrong*
- *Make a lot of guesses about what is going to happen next*
- *Try to answer the questions I asked myself*
- *Try to see if my guesses are going to be right or wrong*
- *Keep thinking of what I already know about the things and ideas in the story to help me decide what is going to happen*
- *If things aren't making sense re read some parts or read ahead to see if I can figure out what is happening*

After I read
- *Check to see if I met the purpose for reading the story*
- *Retell the main points of the whole story so that I can check to see if I understood it*
- *Think about what made me make good or bad predictions*
- *Think about how the story fits with things I already knew about before I read the story.*
- *Think about how I would have acted if I had been the main character in the story.*
- *Make connections to the story (text to self, text to text, text to the world)*
- *What new words were in the text*
- *Think about what I liked, disliked or found interesting*

Prompt list compiled from the Metacomprehension Strategy Index (Schmitt, 1990) and course notes (Munro, 2008)

THINK CHART

Lesson 10

We asked lots of questions and tracked them on a chart. We discussed all of the questions, especially the unanswered ones.

Questions *before reading*	Answered	Not Answered
Questions *during reading*		
Questions *after reading*		

We marked each question according to how we could answer the question.
Answer in the text - A
Using background knowledge - BK
Inferred from the text - I
Through discussion - D
Further research - FR

PROMPT CHART

Before I read
- *Make some predictions about what I think the story is about*
- *Look at the pictures to see what the story is about*
- *Read the title to see what the story is about*
- *Think about what I already know on this topic*
- *Make connections to what the story or topic reminds me of*
- *Use the title and the pictures to help me make guesses about what will happen in the story*
- *Decide on the purpose (why) I am reading the story*
- *Use the inner conversation I have with the text to help me understand what I am reading*
- *Ask myself questions that I would like to have answered in the story*
- *Ask myself 'I wonder' questions*
- *Use my questions and guesses as a reason for reading the story*
- *Think about what I already know about things I see in the pictures*
- *Think about what the people in the story might be like*
- *Think of where the story takes place*

While I read
- *Check to see if the story is making sense*
- *Stop to re tell the main points to see if I am understanding what has happened so far*
- *Keep thinking about the title and the pictures to help me decide what is going to happen*
- *Check to see if I can answer any of the questions that I asked before I started reading*
- *Check to see if my guesses are right or wrong*
- *Make a lot of guesses about what is going to happen next*
- *Try to answer the questions I asked myself*
- *Try to see if my guesses are going to be right or wrong*
- *Keep thinking of what I already know about the things and ideas in the story to help me decide what is going to happen*
- *If things aren't making sense re read some parts or read ahead to see if I can figure out what is happening*

After I read
- *Check to see if I met the purpose for reading the story*
- *Retell the main points of the whole story so that I can check to see if I understood it*
- *Think about what made me make good or bad predictions*
- *Think about how the story fits with things I already knew about before I read the story.*
- *Think about how I would have acted if I had been the main character in the story.*
- *Make connections to the story (text to self, text to text, text to the world)*
- *What new words were in the text*
- *Think about what I liked, disliked or found interesting*

Prompt list compiled from the Metacomprehension Strategy Index (Schmitt, 1990) and course notes (Munro, 2008)

Appendix 3

Teaching Sequence

The Lesson Sequence – *based on work developed by Stephanie Harvey and Anne Goudvis – "Strategies That Work" (2007)*

Lesson 1
Goals
- o **To demonstrate and develop the inner conversation readers have with the text as they read.**
- o **To teach readers to use this inner conversation to help them to read strategically by asking questions before, during and after reading.**
- o **To identify that there are different types of questions: literal – the answers right there in the text, inferential – search for clues in the story and think about your answer, Evaluative – the answer is not told by words in the story, the answer is in your head.**

Teacher Modelling
- o *The teacher explains the strategy*
- o *The teacher models how to effectively use the strategy to understand the text*
- o *The teacher thinks aloud when reading to show thinking and strategy use*

Introduction to the Questioning Strategy

With the students gathered in front of me I explain that when good readers read, they have an inner conversation going on in their head with the writer and the text. For instance, when a reader is confused the voice in her head says "Huh, I don't get this part," or when she reads new information she might say "Wow, I didn't know that before." By paying attention to this inner voice, or thinking, readers help themselves to understand what they are reading. They talk back to the text with questions. We discuss how good readers usually carry on a conversation with the text silently, but I am going to show them what this inner conversation sounds like when I think out loud. I explain that as I read I am going to track my thinking with sticky tabs that I will place on the book each time I have a question about what I am reading.

Orient the text and activate prior knowledge by focusing on the title page and use the front cover picture to formulate questions about the story, the character, the setting and time and what I might know about this time. Then read " Hannah" by Josephine Croser. This story is in Big Book format so the children are all able to see the text as it is read. As I talk about my thinking aloud, I place sticky tabs to show where my questions occur in the text.

At the end of the first chapter, list on a chart the questions that I had during the reading and mark whether these questions were answered or unanswered during the reading.

Explain that sometimes when we read on our questions are answered on the next page. I explain that when that happens place an 'A' for 'Answered" and move the sticky tab to the place where they found the answer. Also explain that some of the most important questions aren't answered and are best left to discussion during and after the reading.

I then read the next chapter and invite the children to jot down questions that they have in their Student Journals. After the reading the students pose their questions, infer answers and share information. In this way we co-construct meaning as we read and we understand the story more completely because of the input.

We continue with subsequent chapters to practice the strategy of questioning and thinking aloud. During the discussion I present the types of questions that can be asked literal, inferential and evaluative and how we manage the answering of these questions by using a combination of the text and our own thoughts and ideas.

Lesson 2
Goal
- o **To practise the inner conversation readers have with the text by thinking aloud and showing the questions that readers have in their heads as they read.**
- o **To list the questions that readers have and to categorise these questions according to how they can be answered (in the text, using background knowledge, inferred from the text or through discussion and further research)**

Guided Practice
- o *The teacher and students practise the strategy together in a shared reading context, reasoning through the text and co-constructing meaning through discussion*
- o *The teacher scaffolds the students' attempts and supports their thinking giving specific feedback and making sure that students understand the task.*

Before reading "The Stranger" a picture book by Chris Van Allsburg , orient the text and activate prior knowledge. Use the title page to formulate questions about the story. Record the questions that we have about the story. As we read stop, mark the location of the question in the text using a sticky tab and invite the children to list their questions on a chart with the headings QUESTIONS BEFORE READING, DURING READING and AFTER READING in their journals. At the end of the story review the questions that we have listed and discuss the type of questions we asked ourselves before, during and after the reading

At the end of the reading look at the questions we compiled and categorise
- o Questions that are answered in the text – A
- o Questions answered from someone's background knowledge – BK
- o Questions whose answers can be inferred from the text – I
- o Questions that can be answered by further discussion – D
- o Questions that require further research –RS
- o Questions that signal confusion – Huh? or C   Repeat the process on the story "Snookle" by Paul Jennings.

Review of Self Management Strategies
At the end of the lesson we look at the Prompt Chart in the students' listing the 'useful things I do to help myself understand what I am reading about' and articulate the ones we used today. This is a feature of each lesson as it scripts the metacognitive language that I want the children to say to themselves by the end of the teaching sequence.

Lesson 3
Goal
- o **To practise the inner conversation readers have with the text by using the questioning strategy to stop, think and form 'I Wonder' questions before, during and after reading.**

Guided Practice
- o *The teacher and students practise the strategy together in a shared reading context, reasoning through the text and co-constructing meaning through discussion*
- o *The teacher scaffolds the students' attempts and supports their thinking giving specific feedback and making sure that students understand the task.*

Before reading "The Wretched Stone" a picture book by Chris Van Allsburg orient the text and activate prior knowledge. Formulate 'I wonder' questions. During and after reading invite the children to record their "I wonder" questions in the before, during and after columns of their 'think charts' in their journals.
After the reading address these questions and decide on how they can be answered. (see categories in previous lesson)

Collaborative Practice
- o *Students share their thinking processes with each other during paired reading conversations*
- o *The teacher moves from pair to pair assessing and responding to student's needs.*

In pairs children will read "UFO's and Strange Lights in the Sky" by Ruth Devich. As they read they articulate their 'I Wonder' questions, mark these with sticky tabs and record these on their 'think charts'. The teacher works with pairs of students as they work together to practise the strategy.

Review of Self Management Strategies
At the end of the lesson we look at the prompt chart listing the 'useful things I do to help myself understand what I am reading about' and articulate the ones we used today.

Lesson 4
Goal
- o **To practise the inner conversation readers have with the text by using the questioning strategy to stop, think and form 'I wonder' questions before, during and after reading.**
- o **To use questions to set a purpose for the reading.**

Guided Practice
- o *The teacher and students practise the strategy together in a shared reading context, reasoning through the text and co-constructing meaning through discussion*
- o *The teacher scaffolds the students' attempts and supports their thinking giving specific feedback and making sure that students understand the task.*

Before reading orient the text and activate prior knowledge by forming a connection to what they know about the Titanic. Articulate questions that get them to connect *self/text, text/text and text/world.*
Using the shared reading strategy, read "Titanic" written by John Jerome. As we read, articulate "I Wonder" questions aloud and mark them in the text using the sticky tabs. List these questions under the before, during and after columns in the 'think charts in their journals. Together discuss how we can answer these questions.

Collaborative Practice
- o *Students share their thinking processes with each other during paired reading conversations*
- o *The teacher moves from pair to pair assessing and responding to student's needs.*

In pairs, the children will read "Crushed By Nature" by Casey Byron. Before, during and after the reading they articulate questions together, working in pairs and mark these in the text using sticky tabs. They then chart their questions on their 'think charts' and discuss together how the questions can be answered.

Review of Self Management Strategies
At the end of the lesson we look at the prompt chart listing the 'useful things I do to help myself understand what I am reading about' and articulate the ones we used today.

Lesson 5
Goal
- o **To read strategically to answer a specific question**
- o **To use questions to set a purpose fro the reading**

Guided Practice
- o *The teacher and students practise the strategy together in a shared reading context, reasoning through the text and co-constructing meaning through discussion*
- o *The teacher scaffolds the students' attempts and supports their thinking giving specific feedback and making sure that students understand the task.*

Using the shared reading strategy, orient the text and activate prior knowledge. Using the shared reading strategy read together "Clouded Leopard" written by James Laurie. Pose a question early in the reading that can be answered by the text. Continue to articulate the questions we have before, during and after we read. Mark these questions in the text using sticky tabs. Discuss after the reading how and where we were able to answer the question we posed at the beginning of the reading.

Collaborative Practice
- o *Students share their thinking processes with each other during paired reading conversations*
- o *The teacher moves from pair to pair assessing and responding to student's needs*

In pairs the children will read "Nearly or Surely Gone" by Tom Pipher. Before, during and after reading they articulate their questions and mark them in the text using a sticky tab. They then chart their questions on their 'think charts' and discuss how the questions can be answered. They record information they have found out and further questions that could be asked.

Review of Self Management Strategies
At the end of the lesson we look at the prompt chart listing the 'useful things I do to help myself understand what I am reading about' and articulate the ones we used today.

Lesson 6
Goal
- o **To read strategically to answer a specific question**

Guided Practice
- o *The teacher and students practise the strategy together in a shared reading context, reasoning through the text and co-constructing meaning through discussion*
- o *The teacher scaffolds the students' attempts and supports their thinking giving specific feedback and making sure that students understand the task.*

Using the shared reading strategy, orient the text and activate prior knowledge. The using the shared reading strategy read together "Fabulous and Ferocious" by Michele Paul. Pose a question early in the reading that can be answered by the text. Continue to articulate the questions we have before, during and after we read. Mark these questions in the text using sticky tabs. Discuss after the reading how and when we were able to answer the question we posed at the beginning of the reading.

Independent Practice
- o *After working with the teacher and with other students, the students try practising the strategy on their own*
- o *The students receive regular feedback from the teacher and other students.*

In pairs the children will read "The Legend of the Venus Fly Trap" by Tracey Reeder. Before reading they articulate a question that they think the text will answer. They continue formulate questions during and after reading and mark them in the text using a sticky tab. They then chart their questions on their 'think charts' and discuss how the questions can be answered. They record information they have found out and further questions that could be asked.

Review of Self Management Strategies
At the end of the lesson we look at the prompt chart listing the 'useful things I do to help myself understand what I am reading about' and articulate the ones we used today.

Lesson 7
Goal
- o **To respond to beyond-the-line questions**

Guided Practice
- o *The teacher and students practise the strategy together in a shared reading context, reasoning through the text and co-constructing meaning through discussion*
- o *The teacher scaffolds the students' attempts and supports their thinking giving specific feedback and making sure that students understand the task.*

Using the shared reading strategy orient the text and activate prior knowledge. Then read several short chapters from "Sarah, Plain and Tall" written by Patricia MacLachlan and articulate the questions before, during and after reading. Mark these with sticky tabs, add them to the list and discuss the type of questions they are and how we can best answer them.

Independent Practice
- o *After working with the teacher and with other students, the students try practising the strategy on their own*
- o *The students receive regular feedback from the teacher and other students.*

Students will continue to read the next 2 short chapters on their own and to record their questions on their 'think charts'

Review of Self Management Strategies
At the end of the lesson we look at the prompt chart listing the 'useful things I do to help myself understand what I am reading about' and articulate the ones we used today.

Lesson 8
Goal – To respond to beyond-the-line questions

Guided Practice
- o *The teacher and students practise the strategy together in a shared reading context, reasoning through the text and co-constructing meaning through discussion*
- o *The teacher scaffolds the students' attempts and supports their thinking giving specific feedback and making sure that students understand the task.*

Using the shared reading strategy continue to read several short chapters from "Sarah, Plain and Tall" written by Patricia MacLachlan and articulate the questions before, during and after reading. Mark these with sticky tabs, add these questions to the list and discuss the type of questions they are and how we can best answer them

Independent Practice
- o *After working with the teacher and with other students, the students try practising the strategy on their own*
- o *The students receive regular feedback from the teacher and other students.*

Students will continue to read the next 2 short chapters from "Sarah, Plain and Tall" on their own and to record their questions on their 'think charts'. The teacher moves from student to student to reinforce and scaffold their questioning.

Review of Self Management Strategies
At the end of the lesson we look at the prompt chart listing the 'useful things I do to help myself understand what I am reading about' and articulate the ones we used today.

Lesson 9
Goal – To independently use the questioning strategy on text

1. *Application of the Strategy in authentic Situations*
- o *Students use the strategy in authentic reading situations with a variety of genres.*

Using the questioning strategy students choose from a variety of texts Ziptales - texts online and Springboards Level 30+ texts to apply the(inner conversation)questioning strategy that they have been using before, during and after reading to help them understand what they are reading.

The teacher will monitor students as they read and pose questions and record their questions on their 'think charts'.

Review of Self Management Strategies
At the end of the lesson we look at the prompt chart listing the 'useful things I do to help myself understand what I am reading about' and articulate the ones we used today.

Lesson 10
Goal – To independently use the questioning strategy on text

1.*Application of the Strategy in authentic Situations*
- o *Students use the strategy in authentic reading situations with a variety of genres.*

Using the questioning strategy students choose from a variety of texts; Ziptales – short texts online and Springboards Level 30+texts to apply the (inner conversation) questioning strategy that they have been using before, during and after reading to help them understand what they are reading.

The teacher will monitor students as they read and pose questions and record their questions on their 'think charts'.

Review of Self Management Strategies
At the end of the lesson we look at the prompt chart listing the 'useful things I do to help myself understand what I am reading about' and articulate the ones we used today.
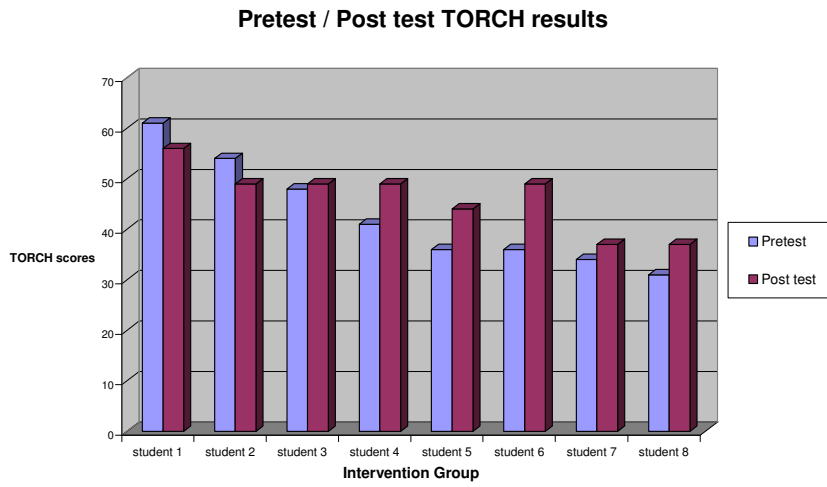
Appendix 4

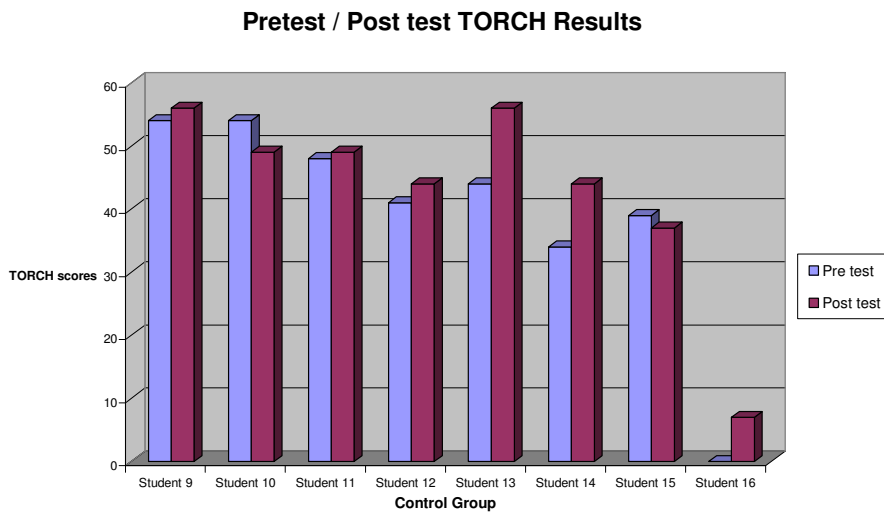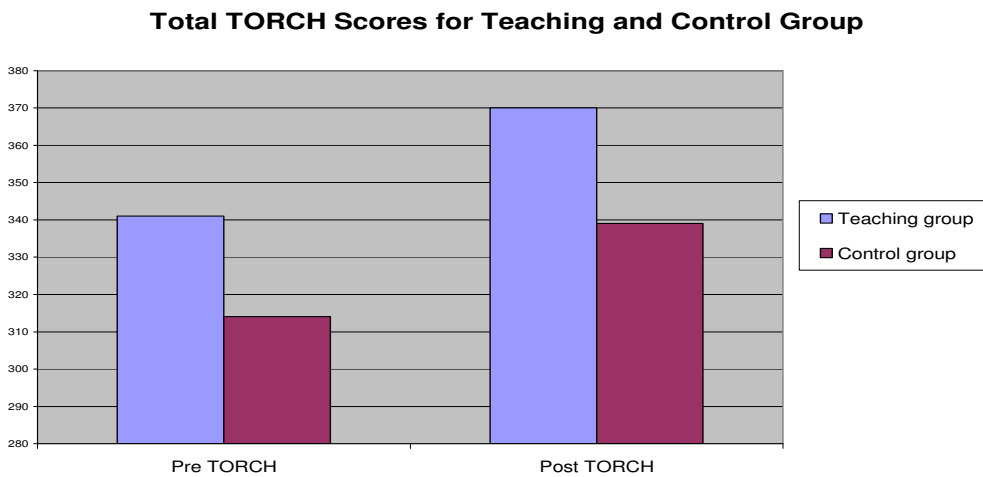# Results

Torch Results

Figure 2
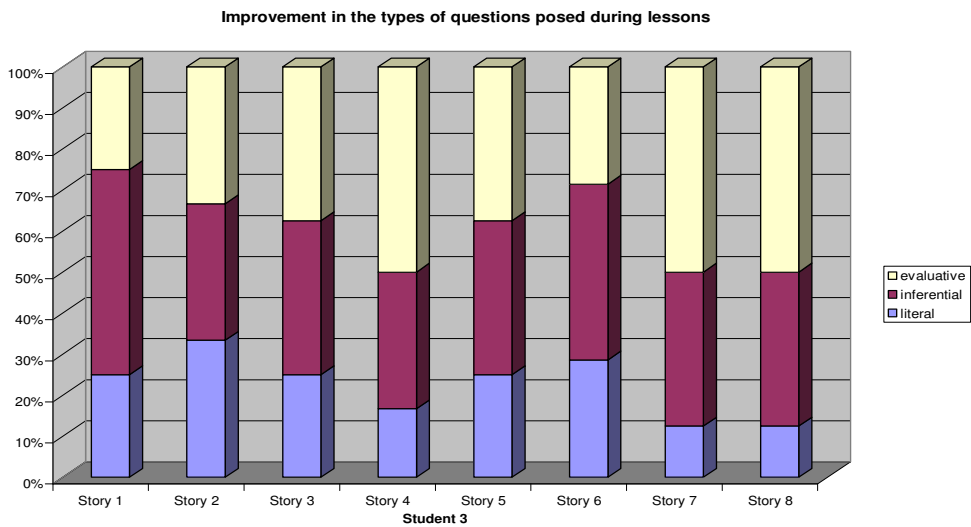
Pretest / Post test TORCH results

Figure 3

Pretest / Post test TORCH Results

Figure 4

Total TORCH Scores for Teaching and Control Group

Improvement in the types of questions posed during lessons

Improvement in the types of questions posed during lessons

Student 1

Improvement in the types of questions posed during lessons

Student 2

Improvement in the types of questions posed during lessons

Student 3

Improvement in the types of questions posed during lessons

Student 4

Improvements in the types of questions posed during lessons

Student 5

Improvements in the types of questions posed during lessons

Student 6

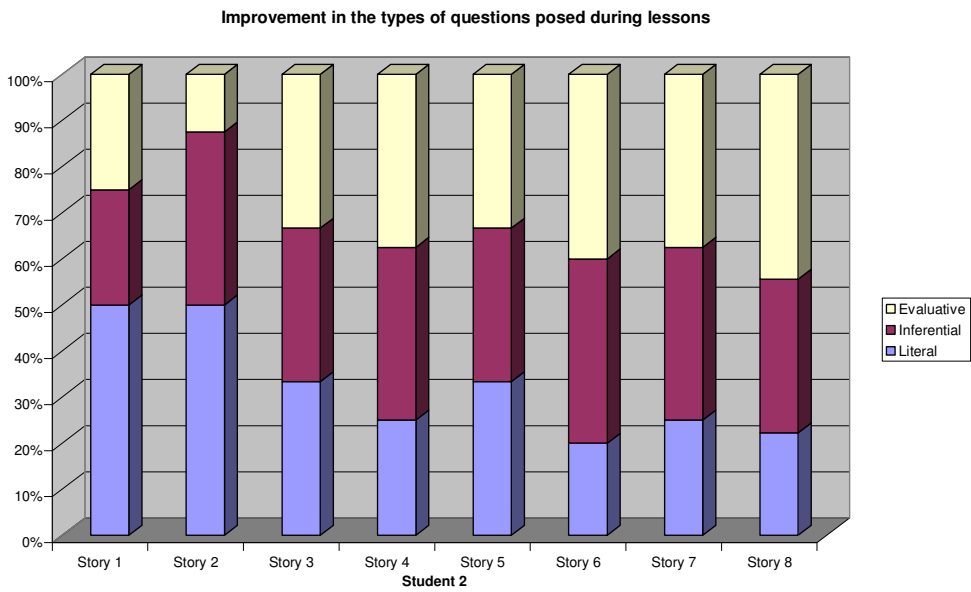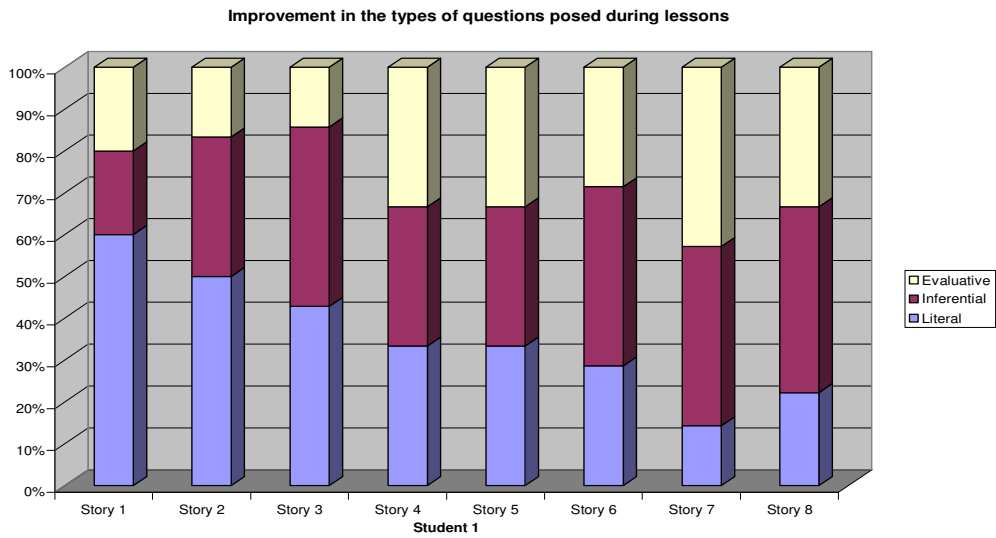**Improvements in the types of questions posed during lessons**

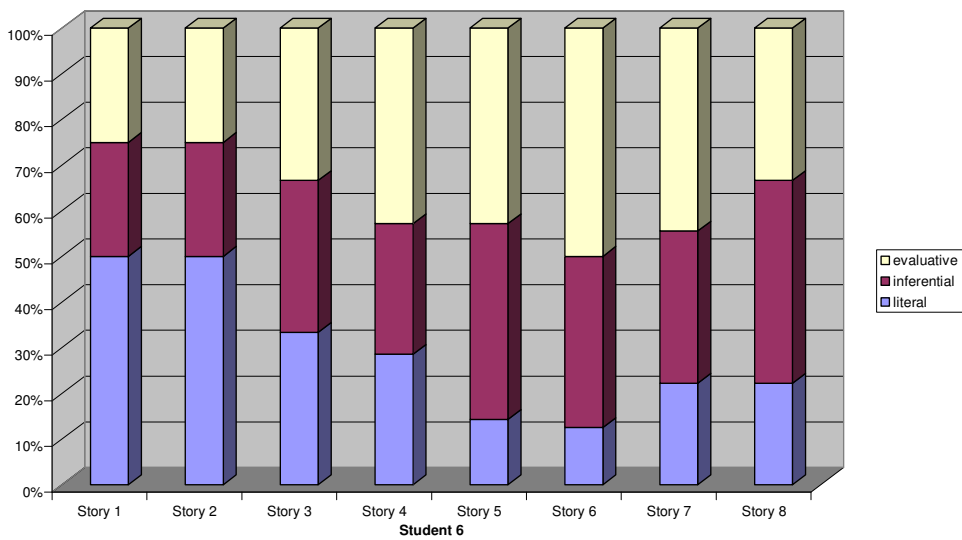**Student 7**

Improvements in the types of questions posed during lessons

Student 8

Mapping of Metacomprehension Strategies Used *before, during and after reading*

Student 1

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1 **18**	15	23	**2** 3 4 9 **10**	**13** **16**		**5** **7**	14	**21**	6	17	**25**	**8**		24	**11** **12** 19 20		22
Post test																	
1 18	15	23	2 3 **4** 9 **10**	13 16		5 7	14	**21**	6	17	25	8		24	11 12 19 20		22
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before   D = during   A = after   Total of strategies used before - pre test = 6/10 post test = 4/10
Total of strategies used during – pretest = 5/10   post test = 1/10
Total of strategies used after – pretest = 2/5   post test = 1/5
TOTAL=13 /25   TOTAL = 6/25 **no improvement**

Student 2

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1 18	**15**	**23**	2 3 **4** **9** 10	13 **16**		5 7	**14**	21	6	17	25	**8**		24	11 12 19 20		22
Post test																	
1 **18**	**15**	**23**	2 3 **4** 9 **10**	13 **16**		5 7	**14**	21	**6**	**17**	25	**8**		24	11 **12** 19 20		22
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before   D = during   A = after   Total of strategies used before- pretest = 6/10   post test = 6/10
Total of strategies used during- pretest =   3/10   post test =6/10
Total of strategies used after- pretest = 1/5   post test =1/5
TOTAL = 10/25   TOTAL= 13/25 **improvement**

Student 3

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1 18	15	23	2 **3** 4 9 10	**13** 16		5 7	14	21	**6**	**17**	25	8		24	**11** **12** 19 20		22
Post test																	
1 18	15	23	**2** **3** 4 **9** 10	13 16		5 7	**14**	21	**6**	17	**25**	8		**24**	11 **12** 19 **20**		22
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before   D = during   A = after   Total of strategies used before – pretest 3/10 post test 5/10
Total of strategies used during – pretest 4/10 post test3/10
Total of strategies used after – pretest 0/5 post test 2/5
TOTAL= 7/25 TOTAL= 10/25 **improvement**

Mapping of Metacomprehension Strategies Used *before, during and after reading*

Student 4

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1	15, **18**	23	2, **3**, 4, **9**, **10**	13, 16		5, 7	14	**21**	6	17	**25**	8		24		**11**, 12, 19, **20**	**22**
Post test																	
1	15, 18	23	2, 3, 4, **9**, 10	**13**, 16		**5**, 7	14	**21**	6	17	**25**	8		**24**		11, 12, 19, **20**	22
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before   D = during   A = after   Total of strategies used before- pretest 3/10   post test 3/10
Total of strategies used during- pretest 3/10   post test 2/10
Total of strategies used after-pretest 3/5   post test 3/5
TOTAL= 9/25   TOTAL= 8/25 *no improvement*

Student 5

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1	15, 18	23	2, 3, 4, 9, 10	13, 16		**5**, 7	14	21	6	17	**25**	8		24		11, **12**, 19, 20	22
Post test																	
1	**15**, 18	23	2, 3, 4, 9, 10	13, 16		5, 7	**14**	21	**6**	17	**25**	8		24		**11**, **12**, 19, 20	**22**
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before   D = during   A = after   Total of strategies used before- pretest 2/10   post test 2/10
Total of strategies used during- 1/10   post test 4/10
Total of strategies used after- 1/5   post test 2/5
TOTAL= 4/25   TOTAL=8/25 *improvement*

Student 6

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1	**15**, **18**	**23**	**2**, 3, 4, 9, 10	13, 16		5, 7	**14**	**21**	6	17	**25**	8		24		**11**, **12**, **19**, 20	**22**
Post test																	
1	**15**, 18	23	2, **3**, **4**, 9, **10**	**13**, 16		5, 7	**14**	21	**6**	**17**	25	8		24		**11**, **12**, 19, 20	**22**
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before   D = during   A = after   Total of strategies used before- pretest 2/10   post test 5/10
Total of strategies used during- pretest 6/10   post test 6/10
Total of strategies used after- pretest 4/5   post test 2/5 **Improvement**
TOTAL= 12/25   TOTAL= 13/25

Mapping of Metacomprehension Strategies Used *before, during and after reading*

Student 7

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1	**15** 18	23	**2** **3** 4 9 10	13 16		5 7	14	21	6	17	**25**	8		**24**		11 **12** 19 20	22
Post test																	
1	15 18	23	**2** **3** 4 9 10	13 16		**5** 7	**14**	21	**6**	17	25	**8**		**24**		11 **12** **19** 20	22
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before D = during A = after   Total of strategies used before- pretest 2/10 post test 5/10
Total of strategies used during- pretest 2/10 post test 3/10
Total of strategies used after- pretest 2/5   post test 1/5
TOTAL= 6/25   TOTAL= 9/25 **Improvement**

Student 8

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1	15 18	23	**2** 3 4 9 10	13 **16**		**5** 7	**14**	21	**6**	**17**	25	8		24		11 **12** 19 20	22
Post test																	
1	15 18	**23**	2 3 4 9 10	**13** 16		**5** 7	**14**	21	6	17	**25**	**8**		24		11 **12** 19 **20**	22
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before D = during A = after   Total of strategies used before- pretest 5/10 post test 2/10
Total of strategies used during- pretest 4/10 post test 4/10
Total of strategies used after- pretest 0/5 post test 2/5
TOTAL= 9/25   TOTAL= 8/25 **no improvement**

Student 9

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1	15 **18**	23	**2** **3** 4 9 10	13 16		5 7	14	21	6	17	25	8		**24**		**11** 12 **19** 20	22
Post test																	
1	**15** **18**	**23**	**2** 3 4 **10**	**13** 16		5 7	14	21	6	**17**	**25**	8		**24**		11 12 **19** **20**	**22**
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before D = during A = after   Total of strategies used before- pretest 4/10   post test 6/10
Total of strategies used during- pretest 3/10   post test 10/10
Total of strategies used after- pre test 1/5 post test 4/5
TOTAL= 8/25   TOTAL= 20/25 *Improvement*

Mapping of Metacomprehension Strategies Used *before, during and after reading*

Student 10

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1 **18**	**15**	**23**	**2** **3** **4** **9** **10**	**13** **16**		**5** **7**	**14**	**21**	**6**	**17**	**25**	**8**		**24**		**11** **12** **19** **20**	**22**
Post test																	
1 **18**	**15**	**23**	**2** **3** **4** **9** **10**	**13** **16**		**5** **7**	**14**	**21**	**6**	**17**	**25**	**8**		**24**		**11** **12** **19** **20**	**22**
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before D = during   A = after   Total of strategies used before- pretest 9/10   post test 10/10
Total of strategies used during- pretest 10/10 post test 10/10
Total of strategies used after- pretest 5/5   post test 5/5 **Improvement**
TOTAL= 24/25 TOTAL= 25/25

Student 11

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1	**15** 18	23	**2** 3 4 9 **10**	13 16		5 7	14	**21**	**6**	17	25	8		24		11 12 19 20	22
Post test																	
1	**15** 18	23	**2** 3 4 9 **10**	13 **16**		**5** 7	**14**	21	6	17	25	8		24		11 **12** **19** 20	22
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before D = during   A = after   Total of strategies used before- pretest 4/10   post test 7/10
Total of strategies used during- pretest 1/10   post test 5/10
Total of strategies used after-pretest 1/5   post test 1/5
TOTAL= 6/25   TOTAL= 13/25 **Improvement**

Student 12

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1	15 18	23	**2** 3 4 9 **10**	13 16		**5** 7	14	21	6	17	**25**	8		**24**		11 12 19 20	22
Post test																	
1	**15** **18**	**23**	**2** 3 4 9 **10**	**13** **16**		**5** 7	**14**	21	6	**17**	25	8		**24**		11 12 19 20	**22**
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before D = during   A = after   Total of strategies used before-pretest 8/10 post test 9/10
Total of strategies used during – pretest 5/10 post test 6/10
Total of strategies used after – pretest 2/5 post test 5/5
TOTAL= 15/25   TOTAL= 20/25 *Improvement*

Mapping of Metacomprehension Strategies Used *before, during and after reading*

Student 13

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1	15 18	**23**	2 3 4 9 10	**13** 16		5 7	**14**	**21**	6	17	25	8		**24**	**11** **12** 19 20		22
Post test																	
1	15 **18**	23	2 3 4 9 10	**13** 16		5 7	**14**	21	6	17	25	**8**		24	**11** **12** **19** **20**		22
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before D = during A = after   *Total of strategies used before- pretest 5/10 post test 7/10*
Total of strategies used during- pretest 4/10 post test 8/10
Total of strategies used after-pretest 3/5   post test 4/5
TOTAL= 12/25   TOTAL= 19/25 **Improvement**

Student 14

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1	15 18	23	2 3 4 9 **10**	13 **16**		5 7	14	**21**	6	17	25	8		24	**11** **12** **19** 20		**22**
Post test																	
1	15 18	23	**2** 3 4 9 **10**	13 16		**5** 7	14	21	6	17	25	**8**		24	11 12 19 20		22
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before D = during A = after   *Total of strategies used before- pretest 3/10 post test 8/10*
Total of strategies used during- pretest 4/10   post test 3/10
Total of strategies used after- pretest 2/5   post test 0/5
TOTAL= 9/25   TOTAL= 11/25 **Improvement**

Student 15

Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1	15 18	23	2 **3** **4** **9** 10	13 16		5 7	14	21	6	17	25	8		**24**	11 **12** 19 20		**22**
Post test																	
1	**15** 18	**23**	2 **3** **4** **9** 10	**13** 16		**5** 7	**14**	**21**	6	**17**	**25**	8		**24**	11 **12** **19** 20		22
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before D = during A = after   *Total of strategies used before- pretest 5/10 post test 10/10*
Total of strategies used during- pretest 1/10   post test 9/10
Total of strategies used after- pretest 2/5   post test 5/5
TOTAL= 8/25   TOTAL= 24/25 **Improvement**

Mapping of Metacomprehension Strategies Used *before, during and after reading*

Student 16

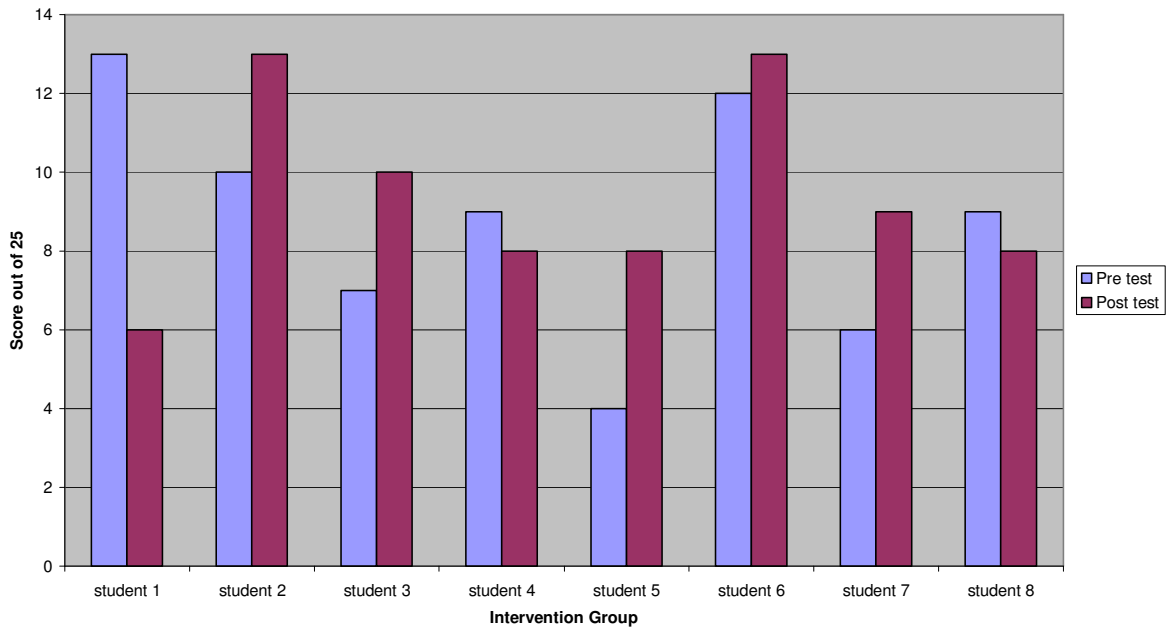| Predicting and Verifying			Previewing			Purpose Setting			Self Questioning			Drawing from Background Knowledge			Summarising and applying Fix-up Strategies		
Pre test																	
1 18	15	**23**	**2 3 4 9 10**	**13** 16		5 7	14	**21**	6	17	25	8		24		11 12 19 20	**22**
Post test																	
1 18	**15**	23	**2 3 4 9 10**	**13** 16		5 7	14	**21**	**6**	17	**25**	8		**24**		11 **12** 19 20	22
B	D	A	B	D	A	B	D	A	B	D	A	B	D	A	B	D	A

B = before D = during   A = after

Total of strategies used before- pretest 4/10 post test 5/10

Total of strategies used during- pretest 1/10   post test 3/10

Total of strategies used after- pretest 3/5   post test 3/5

TOTAL= 8/25   TOTAL= 11/25 *Improvement*

Use of before,during and after reading strategies

Intervention Group

Use of before, during and after reading strategies

Control Group