Explicitly teaching the before, during and after metacognitive strategies to Year 3 'at risk' students, frames their thinking in order to improve reading comprehension and self-efficacy.

Abstract

"In order to help readers with or without reading difficulties, it is very important to understand what specific problems they encounter during their reading. Moreover, it is necessary to identify poor readers' awareness of the strategies they employ while comprehending a text and to explore if they use these strategies effectively." (Lau, 2006) "Current research into the relationship of metacognitive processes and reading strategies advocates teaching all children reading strategies to improve their comprehension." (Munro & Munro, 1994)

The hypothesis of this study is that explicitly teaching the before, during and after metacognitive strategies to 'at risk' Year 3 students, frames their thinking in order to improve reading comprehension and self efficacy.

The participants in the study are 10 Year 3 (8 males & 2 females) students aged between 8 and 9 years old, who have a history of reading difficulties and who have previously participated in one or more intervention strategies such as Reading Recovery and / or Enhancing Reading Intervention Knowledge (ERIK). This study compared two groups (control and teaching). The teaching / intervention group, was explicitly taught over ten consecutive lessons, how to use the before, during and after metacognitive strategies to improve their understanding of what they are reading and their comprehension.

The findings of this study are in line with the metacognitive theorists' and researchers' suggestions for explicitly teaching children to become strategic readers by providing students with a greater repertoire of metacognitive strategies, such as those used before, during and after reading to improve comprehension. This implies that explicit strategic training in metacognitive strategies to children whose reading is not meaning-driven will help them to become text participants and improve comprehension.

Introduction

"The goal of reading is to understand the text, and reading only really occurs when it is understood." (Gee, 2000) Students entering into the middle years of primary schooling, Grade 3, who have experienced difficulties in learning the mechanics of reading (decoding and text conventions) in the early years can often face difficulties with comprehension if they have not explicitly been taught the skills required to comprehend what they are reading. "The skilled reader often engages in deliberate activities that require planned thinking, flexible strategies and periodic self monitoring. They think about the topic, look forwards and backwards in the passage, and check their own understanding as they read." (Paris and Jacobs, 1984) Children who have experienced difficulties with reading often do not recruit these same skills and regularly seem oblivious to them thus disadvantaging them when it comes to all areas of their learning. Also, they often are unable to answer questions about what they have read beyond the literal level of comprehension.

"Readers act on the information in various ways, in order to transform it to knowledge. Comprehending is the term used to describe the set of actions or strategies

readers use at each level. Paraphrasing, predicting and summarizing are examples of comprehending strategies at the sentence, conceptual and topic levels respectively. Each strategy allows readers to transform the text being read and to comprehend it in particular ways. The synthesis of these outcomes is the reader's comprehension at any time." (Munro & Munro 1984) In the past, research has suggested that the reading comprehension problems of students' lies with heavy reliance on decoding text, however, researchers today view such problems as arising from difficulties across a wide range of language and thinking activities (Swanson and Hoskyn, 1998). They recognize that some students have mastered the mechanics of reading but still have comprehension problems. Often this type of problem doesn't manifest itself until the children enter higher grades such as Grade 3 when comprehension demands increase.

"Current research into the relationship of metacognitive processes and reading strategies advocates teaching all children reading strategies to improve their comprehension." (Munro & Munro, 1994) Indeed, researchers such as Paris and Jacobs (1994), Alexander and Jetton (2000), Guthrie and Wigfield (1999) and Pressely and Afflerbach (1995) all concur that awareness and monitoring of one's comprehension processes are critically important aspects of skilled readers. The non-strategic reader tends to expend a lot of energy and focus on reading as a decoding process rather than from gaining meaning from what they are attempting to read and are less likely to spontaneously use the necessary strategies (if these are known) or are unable or decide when to enact these strategies during the reading process. "Learning Metacognitive strategies or Metacomprehension strategies, as a component of a reading program, has helped children experiencing difficulties to becoming more effective readers." (Gee, 2000)

"Metacomprehension is the awareness of one's state of reading comprehension. It involves monitoring understanding and using strategies that support understanding of what is being read. It is knowing when the text is not making sense, knowing what you can do to restore meaning and doing it." (Gee, 2000) As children progress in their schooling, there is an increased demand for them to be able to comprehend beyond the literal level to the inferential and evaluative levels. Parker, Hasbrouck and Denton (2002) state that "the skilled readers differ from unskilled readers, in their use of general world knowledge to comprehend text literally as well as draw valid inferences from texts."

The main goal of reading is to extract and construct meaning from the text. Guthrie and Wigfield (1999) state that, "a person is unlikely to comprehend a text by accident. If the person is not aware of the text, not attending to it, not choosing to make meaning from it, or not giving cognitive effort to knowledge construction, little comprehension occurs." The children who experience reading difficulties are less likely to have the skills necessary to make substantial meaning from texts they endeavour to read. "Learning to use metacomprehension strategies can help poor readers like these to read with a focus on meaning and understanding, to monitor a breakdown in comprehension and to activate appropriate strategies to restore meaning. Teaching Metacomprehension strategies to children whose reading is not meaning-driven will help them to become text participants." (Gee, 2000) Winograd (1990) also argues that "teaching such strategies has twin benefits in that (a) it transfers responsibility for monitoring learning from teachers to students themselves, and (b) it promotes positive self-perceptions, affect, and motivation among students in this manner, metacognition provides personal insight into one's own thinking and fosters independent learning."

This present investigation aims to further extend the earlier research by examining the influence of explicitly teaching the before, during and after Metacognitive strategies to 'at risk' Year 3 students in order to improve their comprehension and self efficacy. In a bid to facilitate students to comprehend text, many researchers have outlined a variety of comprehension strategies that need to be taught. Although the names or descriptions may slightly differ, it is widely agreed by these researchers that these strategies need to be explicitly taught. Parker and Hurry (2007) 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."

At the end of the intervention it will be evident that the children are using the Metacognitive strategies effectively when:

o students are able to voice the strategies that they used before, during and after reading a text

o students are able to answer literal, inferential and evaluative questions about the text they have read

o automaticity of strategies are apparent

o there is a focusing of attentional resources more usefully during reading (Munro & Munro, 1994)

Prediction

Explicitly teaching the before, during and after metacognitive strategies to Year 3 'at risk' students, frames their thinking in order to improve reading comprehension and self-efficacy.

"Pupils take more control for using the strategies, practise cueing themselves and decide when and why they might use it in the future. They again describe how they see the strategies working for them how it is helping them to do things that they did less well earlier. Gradually they use it more independently and apply it in a range of contexts." (Munro & Munro, 1994)

Method

Design

The study uses a case study OXO design, in which the gain in prose comprehension and self efficacy following explicit teaching of Metacognitive strategies, before, during and after reading is monitored for year three students who are considered 'at risk' and have reading difficulties. The study compared two groups of students, a control group and a teaching group.

Participants

The participants in the study are 10 Year 3 students who have a history of reading difficulties and who have previously participated in one or more intervention strategies such as Reading Recovery in Year 1 and/or Enhancing Reading Intervention Knowledge (ERIK) in Year 2. All participants attend a school in the outer metropolitan suburbs of Melbourne. Their ages range between ninety seven months (8 years) to one hundred and eight months (9 years) and their entry reading ability ranges from Reading Recovery Text Level 11 to Level 24. Further information pertaining to the students is shown in Table 1. The students were chosen for this study when they were identified as 'at risk' as a result of the mandated Marie Clay Observation Survey Literacy Post test in 2008 (end of grade two year) and mandated

Marie Clay Observation Survey Literacy Pre testing at the beginning of 2009 (beginning of grade 3 year). During this pre testing, the results the children scored put them in the 'at risk' category according to the Catholic Education Office standards and targets for students (Appendix 6) who are currently in Year three. The intervention or teaching group was made up of 5 students and the control group was also made up of 5 students. The children were grouped according to a similar Reading Recovery text level score with all the children in the intervention group attaining a pre-test text level of 21. This was also done to make to selection of texts appropriate for all the participants.

Table 1 Student Demographics

Student Number	Teaching or Control group 0 = Control 1= Teaching	Age in Months	Gender M = Male F = Female	Years of schooling	Intervention 0 = None 1 = R.R. 2 = ERIK	Special Needs 0 = None 1 = I.D 2 = SLD. 3 = SOC EM	EMA 0 = No 1 = Yes
1	0	108	M	3	1	0	0
2	1	104	F	3	1	0	0
3	1	102	M	3	1 / 2	0	0
4	1	97	M	3	1	0	0
5	1	103	M	3	1 /2	0	0
6	0	100	M	3	1	0	0
7	1	98	M	3	1	0	0
8	0	102	F	3	1/2	0	1
9	0	99	F	3	1/2	0	0
10	0	97	M	3	1/2	1	1

Materials: Materials used included the following:

Tests (Appendix 1)

o Reading Comprehension, Rate and Accuracy were assessed using the Neale Analysis of Reading Ability (Neale, 1996)

o Text Levels were assessed using the AlphaAssess Resources for Assessing and Developing Early Literacy (2007)

o Metacognitive strategy knowledge was assessed using the Metacomprehension Strategy Index - a questionnaire to measure children's awareness of strategic reading processes (Schmitt, 1990) & the Reading Awareness Survey (Journal of Reading, 2002)

o Self Efficacy was assesses using the Self-Efficacy Scale (which was adapted from those designed by Chapman and Tunmer 2002)

o The Metacognitive Strategy Checklist assessed the children's knowledge of metacognitive strategies during the pre testing / teaching / post testing phases (adapted from the Metacomprehension Strategy Index Schmitt, 1990).

Teaching Sequence

o Sequence of 10 consecutive lessons providing explicit instruction of the before, during and after Metacomprehension strategies (Appendix 2)

o Texts – A collection of texts from a variety of genres (specific titles found in Appendix 3)

o Prompt Chart of Metacognitive Strategies (Appendix 4)

o Prompt cards of before, during and after Metacognitive strategies (Appendix 5)

<u>Procedure</u>

1. All 10 students were pre-tested using the following:

o Neale Analysis of Reading Ability (Neale, 1996) testing comprehension, accuracy and rate – "Bird" & "Road Safety"

o Text Levels using the AlphaAssess Resources for Assessing and Developing Early Literacy (2007)

o Metacognitive strategy knowledge was assessed using the Metacomprehension Strategy Index (Schmitt, 1990) - a questionnaire to measure children's awareness of strategic reading processes

o Metacognitive strategy knowledge - Reading Awareness Survey (Journal of Reading, 2002)

o Self-Efficacy – Self-Efficacy Scale (which was adapted from those designed by Chapman and Tunmer 2002)

o Information gleaned from the Metacognitive Strategy Index and the Reading Awareness Survey was transferred on to a checklist titled The Metacognitive Strategy Checklist which was adapted from the Metacomprehension Strategy Index Schmitt, 1990

The information gathered from these assessments provided a basis for the selecting of students in the control and intervention groups and indicate the level of skill and knowledge that the children had. The Metacomprehension Strategy Index (MSI) (Schmitt, 1990) was administered to assess the children's current awareness and knowledge of the Metacognitive reading strategies. The questions were read aloud by the teacher and the students selected the answer that they thought helped them the most from the four multiple choice answers - Ten questions pertaining to before

reading strategies, ten questions pertaining to during reading strategies and five questions pertaining to after reading strategies were administered.   The Reading Awareness Survey was a much simpler survey measuring the student's awareness of Metacognitive strategies. There were ten multiple choice questions with a variety of correct answers not just one, such as is the case with the MSI. The AlphaAssess texts were used to benchmark the children reading ability - texts level range from Reading Recovery levels 1 to 28 and the Self Efficacy Scale was used to measure how children perceive themselves as readers. To administer the questionnaire, the student needs to point to the face which best describes their answer. The faces relate to the following five responses:

- I know I can't

- I think I can't

- I'm half and half sure

- I think I can

- I know I can

2.   Over a period of two weeks, the intervention group was withdrawn and participated in ten consecutive lessons lasting on average 50 minutes. The lessons were conducted in a room that was separate from their classroom (away from the control group) and away from any distractions and noise. It was also timetabled during the student's normal literacy instruction times. The lessons were designed to explicitly model and teach the students the before, during and after Metacognitive strategies using authentic texts. The explicit teaching of the specific strategies was based on the results obtained in the pre-testing, especially from such sources as the Metacomprehension Strategy Index (Schmitt, 1990) and the Reading Awareness Survey. (Journal of Reading, 2002)

A description of the lessons is listed below and a further detailed description of the lessons, including an evaluation of each session, can be found in Appendix 2.

The first session was an introductory type lesson where questions were posed to the students about - What do you do, to help you read & understand what you read, before, during & after reading? The children brainstormed strategies or reading actions that they use or could use before, during and after reading to help them understand the text better. (Results of the brainstorm can be found in the evaluation section of the sequence of lessons in Appendix 2) The children responses were recorded on a list and compared against the Metacognitive prompt card that they were given. A question was posed to assist discussion, "Why would we use these strategies? How will it help our reading? The children verbalized why they thought it would be useful to use the strategies and how it would help them with their reading. Once again these responses were recorded. One strategy from each of the areas (before, during and after) that the children were not already using (based on pre-test data from MSI) was introduced. Using the 'Read To' strategy, the teacher modelled these strategies to demonstrate a reader's inner conversation.

The following 9 sessions (with a focus of 3 sessions per area of strategies – explicit teaching i.e.: 3 sessions on before strategies, 3 sessions on during strategies and 3 sessions on after strategies) proceeded in the following manner:

- Review strategies from the last lesson – go through the prompt chart with the children.
- Introduce new strategies that are to be focussed on during this lesson. Strategies from 'What we should do before / during / after we read…" (depending on the session)
- Using the 'Read To' strategy - Model these strategies to demonstrate a reader's inner conversation.

- Introduce a book that the children are going to read in a 'shared reading' strategy. Using the Metacognitive strategies, the children practise using these strategies during the reading of the text.

Review the Self Management strategies

- Review with the children the Metacognitive strategies that have been introduced during this lesson and past lessons and discuss how they assist the reader in understanding the text.

- Share time – students articulate learning gained from the session.

Student behaviours and progress were noted during and at the end of each session in order to monitor and evaluate teaching effectiveness and used for subsequent lesson planning.

Results

Table 2 Student Information – Pre & Post Testing

Students	Attendance	Text Level PRE	Text Level POST	Neale Acc PRE Stanine	Neale Acc Post Stanine	Neale Comp PRE Stanine	Neale Comp POST Stanine	Neale Rate PRE Stanine	Neale Rate POST Stanine	MSI PRE %	MSI POST %	Self Efficacy PRE %	Self Efficacy Post %	MSC PRE %	MSC PRE %	RA SURVEY PRE %	RA SURVEY POST %
1	0	22	22	3	3	4	4	3	3	4	6	79	75	3	5	30	40
2	10	21	23	1	3	3	4	2	3	32	84	89	91	25	66	60	80
3	9	21	23	1	3	3	5	2	3	32	60	85	86	22	47	60	80
4	10	21	23	1	3	3	4	1	3	32	80	88	89	25	69	70	100
5	9	21	23	1	3	1	3	1	2	20	60	92	97	16	47	30	60
6	0	24	24	2	3	3	4	3	3	28	32	80	80	22	25	40	40
7	10	21	23	1	3	1	4	0	3	36	68	83	85	28	53	70	80

8	0	19	20	2	2	3	3	2	2	24	32	68	79	19	22	30	20
9	0	19	20	2	2	2	2	2	2	16	20	62	70	13	16	40	50
10	0	11	11	0	0	0	0	1	1	16	20	65	60	13	16	20	30

Analysis of results and collated data has demonstrated an overall improvement for all students in the intervention group and support for the hypothesis, that explicitly teaching Year 3 students before, during and after metacognitive strategies frames the thinking to improve reading comprehension and self efficacy.

Comparison of results form the Neale Analysis of Reading Ability

The trend in accuracy, rate and comprehension of aural text with metacognitive training pre and post teaching of the intervention, show that cognitive training using the metacognitive strategies improves literal comprehension, accuracy in recalling detail in re-telling as a measure of comprehension and the ability to increase the rate of their reading. The Neale Analysis of Reading Ability results show a trend for improvement of 100 percent in the intervention group in all areas of accuracy, (Figure 1) comprehension (Figure 2) and rate (Figure 3). Gains made by the intervention group through comparison of pre and post scores were greater than that of the control group with only 10 percent of the students in the control group improving in the areas of comprehension and rate. (Figures 2 & 3) However it should be noted that 40 percent of the students in the control group demonstrated higher accuracy, comprehension and rate scores in pre testing.
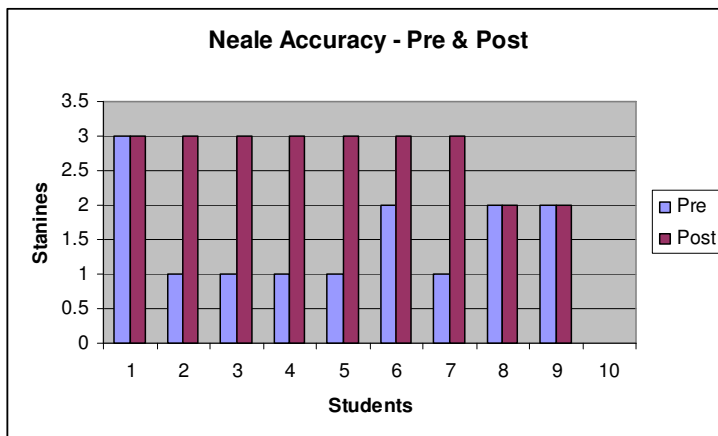
Figure 1

Neale Accuracy - Pre & Post

Figure 2

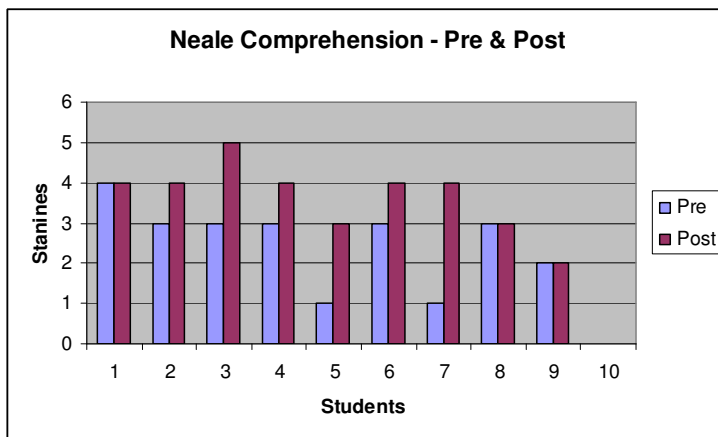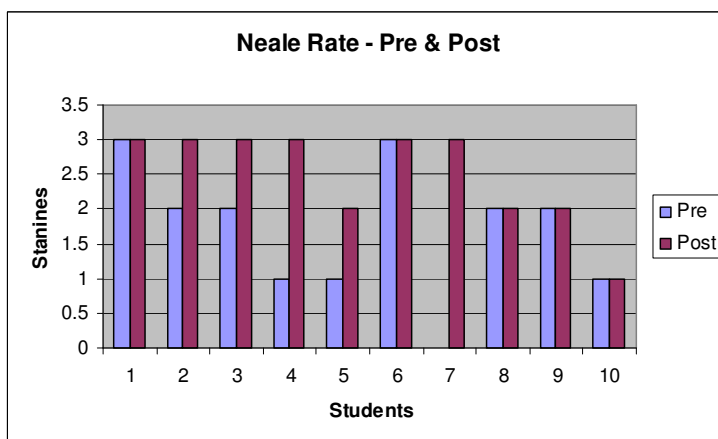Neale Comprehension - Pre & Post

Figure 3

Neale Rate - Pre & Post

With the intervention group consisting of matched students with like abilities in reading levels and comprehension, rate and accuracy, steady improvement across the board was pleasing. In the area of accuracy, all students in the intervention group improved from their pre test scores of Stanine 1 to Stanine 3 showing an improvement of two stanines. In the area of comprehension, students 2 and 4 improved a stanine level with students 3 and 5 improving two stanine levels and student 7 improving 3 stanine levels. In the area of rate, students 2, 3 and 5 showed a gain of one stanine level with student 4 gaining two stanine levels. Extremely pleasing results were shown by student 7 with a gain of 3 stanine levels. This significant improvement by student 7 could be attributed to not only being part of the intervention group, but to a number of other factors such as greater confidence, secure environment, improved self efficacy and a greater understanding of how this particular child learns. Student 6, who was part of the control group improved in the areas of accuracy and comprehension which can possibly be attributed to the good teaching he was exposed to in his own classroom program. The other children in the control group maintained their levels of accuracy, comprehension and rate. However it should be noted that the pre testing period, explicit teaching and post teaching was completed over a period of a month. All of the gains made by the children in the intervention group can also be seen in their text reading ability, with all students improving two text levels from pre to post testing. (Figure 4)
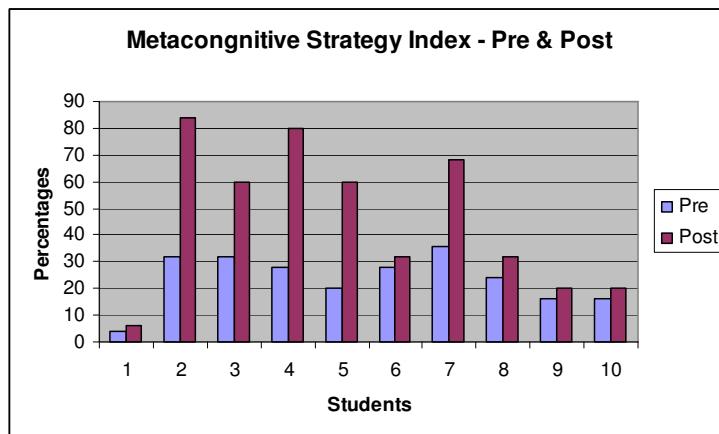
Figure 4

Text Levels - Pre & Post
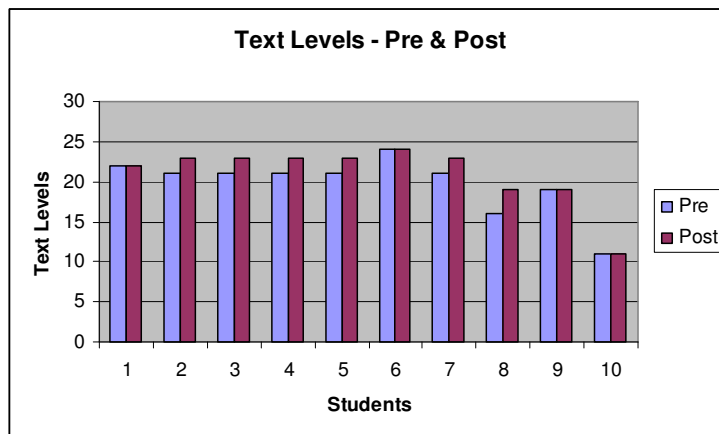
Students 8 and 9 in the control group also improved one text level but again this could possibly be attributed to the good teaching they was exposed to in their own classroom program.

Comparison of the results from the Metacognitive Strategy Index

The Metacognitive Strategy Index was a multiple choice test with 25 questions, four responses each question. 10 of the questions were about those metacognitive strategies that could be used before reading, 10 of the questions were about those metacognitive strategies that could be used during reading and 5 questions about those metacognitive strategies that could be used after reading.

Figure 5

The trend in the Metacognitive strategy data demonstrates that all children, in both the intervention and control group made gains of varying degrees. (Figure 5) Those students in the intervention group made gains of between 15 percent and 52 percent, whereas the students in the control groups made gains between 2 percent and 8 percent. (Table 3 & 4)

Table 3 – Metacognitive Strategy Index – Pre & Post Scores & Gains Made Intervention Group

Student	Pre test score %	Post test score %	Gain made %
2	32	84	52
3	32	60	28
4	32	80	48
5	20	60	40
7	68	83	15

Table 4 - Metacognitive Strategy Index – Pre & Post Scores & Gains Made

Control Group

Student	Pre test score %	Post test score %	Gain made %
1	4	6	2
6	28	32	4
8	24	32	8
9	16	20	4
10	16	20	4

In the Intervention group, all 5 students showed improvement in their knowledge of before, during and after metacognitive strategies. Student 7 had the lowest level of improvement however; student 7 scored the highest score in pre testing. Student 3 improved 28 percent and student 5, 4 and 2 showed an improvement of 40, 48 and 52 percent respectively, making the greatest gains of those in the intervention group. All students in the control group made small gains; however, this possibly could be attributed to the multiple choice options of the Metacognitive Strategy Index or possibly once again to the good teaching they were exposed to in their own classroom program. These results were supported by the results obtained in the Reading Awareness Survey, (Figure 6) where once again all intervention students showed improvement and 4 out the five control group students made minor gains.

Figure 6

Reading Awareness Survey - Pre & Post
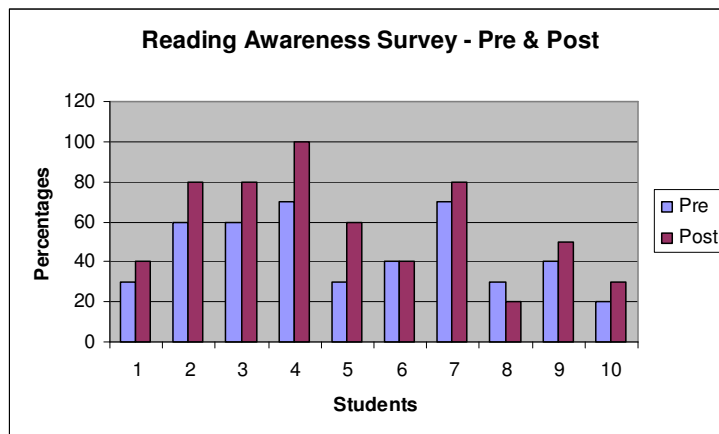
Students in the intervention group achieved gains of 10 percent to 30 percent, whereas those students in the control group once again only made minor gains with students 1, 9 and 10 improving by 10 percent and student 6 making no gains at all. Student 8 actually showed a lower score in the post testing of 10 percent.

<u>Comparison of results from Self Efficacy Scale</u> (Figure 7)

The trend data from the Self Efficacy scale suggested from the pre testing that all students in both the intervention and control groups had medium to high self efficacy. This result was unexpected as it was my belief from information gained from the student's classroom teachers and previous teachers, that these children had a low self efficacy. Initial data suggested and further conversations with the students showed that this assumption was incorrect. The data from the pre and post testing suggested that particularly those children in the intervention group had very high self efficacy with results as shown in Table 5 & 6.
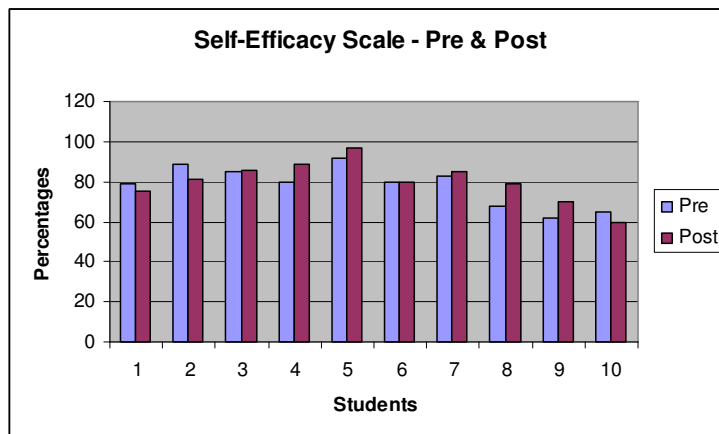
Figure 7

Table 5 – Intervention group

Students	Pre Testing %	Post Testing %	Gains Made %
2	89	91	3
3	85	86	1
4	88	89	1
5	92	97	5
7	83	85	2

Table 6 – Control group

Students	Pre Testing %	Post Testing %	Gains Made %
1	79	75	- 4
6	80	80	0
8	68	79	11
9	62	70	8
10	65	60	-5

The results from both the pre and post testing of the self efficacy scale, clearly showed that the children in both groups did not need work on their self efficacy and therefore any suggestion by this researcher to attribute an improvement in the students self efficacy due to the explicit teaching of the before, during and after metacognitive strategies to improve their self efficacy would be erroneous. It is unclear to this researcher why these results were so high; however, it may be attributed to good teaching by past and present teachers, who are mindful of providing a supportive environment for all students in their classes and by catering to all individuals, by differentiating the curriculum but not in an obvious way where children are aware of the differences in their abilities.

Discussion

Upon reflecting on the results of this study there is partial support for the hypothesis which suggests that explicitly teaching the before, during and after metacognitive strategies to Year 3 'at risk' students frames the thinking to improve reading comprehension and self efficacy. This researcher suggests partial support, as the results in the pre and post testing of the self efficacy scale, proposes that for the most part the students did not need intervention in regards to their self efficacy. Other results regarding improvement in reading comprehension can be established with results in all other testing, suggestive of improvement. Students in the intervention group improved in the use of before, during and after metacognitive strategies with these skills being positively associated with gains made in comprehension and text level. Even though the trends are positive, continued explicit teaching embedded in classroom instruction would need to be sustained to enable students to consolidate and

to achieve automaticity of the knowledge and use of the learnt metacognitive strategies.

The results lend support for the work of Munro and Munro (1994), Paris and Jacobs (1984) and Gee (2000) and many other researchers in this field, who suggest that the explicit teaching of Metacognitive strategies, as a component of a reading program, will help children experiencing difficulties to becoming more effective readers. "There is consensus that awareness and monitoring of one's comprehension process are critical aspects of skilled reading, because successful reading comprehension is not only a matter of knowing what strategy to use, but the reader must also know how to use it successfully." (Anderson, 1991) This was particularly demonstrated by the improvement in the comprehension scores of Students 3 and 5 following the intervention.

The Metacognitive Strategy prompt cards outlining the before, during and after strategies the students could use, were beneficial in helping the students to remember the strategies that are supportive during the reading process. They were able to use these cards as a prompt for remembering if they were unable to retain all of the strategies and a compact tangible support to be able to articulate the strategies they needed to be using. During each lesson, the students were able to refer to the cards when needed and to use them at the beginning of each lesson as cue to begin discussions and revise what they had already learnt. At the end of the final teaching session when the students discussed what they had learnt, they stated that the strategies helped them to better understand what they were reading and helped them have a clear and concise process when they read any given text. A classroom teacher of two of the students in the intervention group, commented to me after completing

some further reading assessments for reporting, and I quote "Wow! I don't know what you did with Student 3 and 7 but they have jumped up 3 text levels to level 26." This is a further 3 text levels since completing the intervention and post testing. This researcher was very pleased to have such positive feedback and very pleased that these two students continued to improve.

When choosing the texts (Appendix 3) for the intervention group to read during the teaching sessions, it should be noted that a mixture of fiction and non fiction text were selected and the texts were purposefully chosen at an easy level so that the students didn't need to be preoccupied with the decoding of the text but able to give their full attention to using the strategies. The non-strategic reader tends of expend a lot of energy and focus on reading as a decoding process rather than from gaining meaning from what they are attempting to read and are less likely to spontaneously use the necessary strategies (if these are known) or are unable or decide when to enact these strategies during the reading process.

In conclusion, I concur with Helen Gee (2000) who states, "I have confirmed that young children with severe reading difficulties can be taught about metacomprehension and can use metacognitive reading strategies to enhance the process of making meaning from text. Direct explanation is an effective means of teaching and the gradual transfer of responsibility for strategy use engenders feeling of ownership that convinces children they can use the strategies on their own."

<u>Implications for teaching practice</u>

The major implication this researcher would suggest for teaching practice would be the explicit teaching of metacognitive strategies to begin from the first day of Grade Prep. Particularly during shared reading, focussed pullout groups and guided reading, teachers need to be mindful to explicitly model, teach and demonstrate the effective use of the inner conversation, skilled readers have to assist them with their reading. "Direct explanation and explicit teaching shows poor readers how to think and act like an expert when they are reading." (Gee, 2000) Teachers need to encourage and instruct students to be active participants in their reading, who are inquisitive and enquiring when it comes to the texts that they are reading. "Teaching Metacomprehension strategies to children whose reading is not meaning-driven will help them to become text participants." (Gee, 2000) Children need to be explicitly taught how to use metacognitive strategies, as they are not innately acquired by all students. The emphasis of decoding text from grade prep to grade two which is mandated through pre and post testing, needs to be only one aspect of teaching reading in the early years. The main goal of reading is to extract and construct meaning from the text; therefore the reader's involvement in the text is of crucial importance.

"Learning to use metacomprehension strategies can help poor readers like these to read with a focus on meaning and understanding, to monitor a breakdown in comprehension and to activate appropriate strategies to restore meaning." Teachers also need to be aware that "teaching such strategies has twin benefits in that (a) it transfers responsibility for monitoring learning from teachers to students themselves, and (b) it promotes positive self-perceptions, affect, and motivation among students in

this manner, metacognition provides personal insight into one's own thinking and fosters independent learning." (Winograd, 1990)

Teachers need to encourage children to talk to each other about the strategies they are using when addressing text and they need to be given plenty of opportunities to practice these strategies with a variety of stimulating, authentic texts. "The concept of 'ownership' is very important and it is valuable practice to record strategies 'owned' by a child on a personal strategy chart and posters around the classroom." (Gee, 2000) Also, reading strategy training could facilitate the 'transfer' of strategies to new and different tasks.

The gains illustrated in student outcomes at the end of this research are testimony to the success of strategic training in the use of metacognitive strategies in improving comprehension and this may assist similar students, if not most students in the classroom. Gaining meaning from both aural and written text is paramount and needs to be given higher priority in the planning of literacy lessons in the classroom.

Possible directions for future research

- Investigate the explicit teaching of metacognitive strategies to prep children in improving their accuracy and comprehension levels.
- Include measures for determining levels of comprehension in current pre and post testing regimes for all students.
- Use metacognitive strategies in mainstream classroom practice to develop literal and inferential comprehension of text to measure improvements in reading accuracy and comprehension.

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APPENDICES

Appendix 1 – Tests

Neale Analysis of Reading Ability
3rd edition

Name		Sex M/F	School		Year of Schooling
Date of Birth	Date of Testing	Age at Testing yrs mths	Language(s) spoken at home		
Test Administrator			Class Teacher		

RAW SCORE SUMMARY
*Directions for administering and scoring this test can be found on pp. 10–25 of the Manual

Passage	ACCURACY			COMPREHENSION	RATE		
	Maximum Possible Score	Errors	Passage Score	Questions Correctly Answered	Words Read	Cumulative Number of Words	Time in Seconds Per Passage
Level 1 Bird	16 -		=		26	26	
Level 2 Road Safety	16 -		=		+ 52 =	78	
Level 3 Ali	16 -		=		+ 73 =	151	
Level 4 Jan	16 -		=		+ 96 =	247	
Level 5 The Fox	16 -		=		+ 117 =	364	
Level 6 Migration	20 -		=		+ 141 =	505	
					Total Words Read:		Total Time:
TOTAL RAW SCORES:	Accuracy:			Comprehension:	Rate = $\frac{Words\ Read}{Total\ Time}$ x 60		Rate:

STANDARDISED SCORE SUMMARY

	Raw Score	Percentile Rank	Stanine	Performance Descriptor	National Profile Level	Reading Age
ACCURACY						
COMPREHENSION						
RATE						

ERROR COUNT

% of Total Count = $\frac{Error\ Count}{Total\ Errors}$ x 100	Total Mispronounciations	Total Substitutions	Total Refusals	Total Additions	Total Omissions	Total Reversals	Total Errors
% of Total Count							

Summary and recommendations:

Appendix 1 – Tests

Practice Passage X (5-7 year olds)

I have a lot of toys. I have them in a box. I like to play with all of them. But at bed-time I like my teddy bear best.

QUESTIONS

1. What was that story about?
   Toys. A box of toys. Playing with toys. Favourite toy. Teddy bear, etc.
2. Where did the little boy/girl keep his/her toys?
   In a box.
3. At night-time what was the little boy's/girl's favourite toy?
   Teddy bear.

4. Why do you think teddy was the best toy at bed-time?
   Because he is soft, cuddly, furry. Because he stops me feeling frightened, keeps me safe. Because he is my old one/toy. Or any sensible answer that shows the implied relationship of affinity between the child and a comfort toy.

Practice Passage Y (7 years and over)

My friend and I made a tree-house. We like to hide in it. We climb up the rope and pull it up after us. Then no-one knows where we are. We play space-ships. At tea-time we slide down fast and we are always first for tea.

QUESTIONS

1. What would you say was the best name for that story?
   Tree house. Playing in a cubby house. Playing space ships or similar titles.
2. Who built the house in the tree?
   My friend and I.
   The boy's/girl's friend and him/her.
3. How did the boys/girls get up into the tree-house?
   Climbed up a rope.

4. How could the children's friends guess that they were playing up in the tree-house?
   The rope was not there. Or it was pulled up. Or any similar response.
5. What game did the boys/girls play in the tree-house?
   Space ships.
6. How did the little boys/girls manage to be always first for tea?
   They slid down the rope fast.

Mispronounciations	Substitutions	Refusals	Additions	Omissions	Reversals			

Do not include Practice Passages in formal scoring.

Appendix 1 – Tests

Bird (Level 1)

A bird hopped up to my window. I gave her some bread. She made a nest in my garden. Now I look after her little ones.

(26 words)

COMPREHENSION QUESTIONS

1. Where did the bird hop to?
   To my (the) window.
2. What did the little boy/girl give the bird?
   Bread (crumbs).

3. What did the bird do in the garden?
   Built a nest.
4. What does the little boy/girl do now for the bird?
   Looks after (feeds) the baby birds. The little ones.

Mispronounciations	Substitutions	Refusals	Additions	Omissions	Reversals	Total Errors	Comprehension	Time

Road Safety (Level 2)

Kim stopped on her way to school. In the middle of the traffic lay two children. Their bicycles had crashed into each other.

Kim ran quickly to help. She saw that no-one was hurt. The children pointed to a television camera. 'We are taking part in a

road safety lesson,' they said. *(52 words)*

COMPREHENSION QUESTIONS

1. Where was Kim going?
   To school.
2. Why did Kim stop?
   She saw two children lying on the road. She saw an accident etc.
3. What had happened to the bikes?
   They had crashed (into each other).
4. How do you think Kim felt?
   Frightened, curious, anxious, scared, etc.

5. What did Kim do?
   She ran to help them.
6. Were the children hurt?
   No.
7. What were the children really doing?
   Taking part in a lesson. Making a television program.
8. How did Kim find out what was happening?
   She saw the cameras. The children pointed to the cameras. The children told her.

Mispronounciations	Substitutions	Refusals	Additions	Omissions	Reversals	Total Errors	Comprehension	Time

32

Appendix 1 – Tests

Running Record Sheet

RUNNING RECORD SHEET

Name: _____ Date: _____ D. of B.: _____ Age: _____ yrs _____ mths

School: _____ Recorder: _____

Text Titles	Errors Running Words	Error Ratio	Accuracy Rate	Self-correction Ratio
Easy _____	_____	1: _____	_____ %	1: _____
Instructional _____	_____	1: _____	_____ %	1: _____
Hard _____	_____	1: _____	_____ %	1: _____

Directional movement _____

Analysis of Errors and Self-corrections
Information used or neglected [Meaning (M), Structure or Syntax (S), Visual (V)]

Easy _____

Instructional _____

Hard _____

Cross-checking on information (Note that this behaviour changes over time)

Page	Title	Count		Analysis of Errors and Self-corrections Information used	
		E	SC	E MSV	SC MSV

Appendix 1 – Tests - Metacomprehension Strategy Index

Directions: Think about what kinds of things you can do to understand a story better before, during, and after you read it. Read each of the lists of four statements and decide which one of them would help *you* the most. *There are no right answers.* It is just what *you* think would help the most. Circle the letter of the statement you choose.

I. In each set of four, choose the one statement which tells a good thing to do to help you understand a story better *before* you read it.

1. Before I begin reading, it's a good idea to
   - A. See how many pages are in the story.
   - B. Look up all of the big words in the dictionary.
   - C. Make some guesses about what I think will happen in the story.
   - D. Think about what has happened so far in the story.

2. Before I begin reading, it's a good idea to
   - A. Look at the pictures to see what the story is about.
   - B. Decide how long it will take me to read the story.
   - C. Sound out the words I don't know.
   - D. Check to see if the story is making sense.

3. Before I begin reading, it's a good idea to
   - A. Ask someone to read the story to me.
   - B. Read the title to see what the story is about.
   - C. Check to see if most of the words have long or short vowels in them.
   - D. Check to see if the pictures are in order and make sense.

4. Before I begin reading, it's a good idea to
   - A. Check to see that no pages are missing.
   - B. Make a list of words I'm not sure about.
   - C. Use the title and pictures to help me make guesses about what will happen in the story.
   - D. Read the last sentence so I will know how the story ends.

5. Before I begin reading, it's a good idea to
   - A. Decide on why I am going to read the story.
   - B. Use the difficult words to help me make guesses about what will happen in the story.
   - C. Reread some parts to see if I can figure out what is happening if things aren't making sense.
   - D. Ask for help with the difficult words.

6. Before I begin reading, it's a good idea to
   - A. Retell all of the main points that have happened so far.
   - B. Ask myself questions that I would like to have answered in the story.
   - C. Think about the meanings of the words which have more than one meaning.
   - D. Look through the story to find all of the words with three or more syllables.

Source: Schmitt, M.C. (1990). A questionnaire to measure children's awareness of strategic reading processes.
The Reading Teacher, 43, 454-461.

7. Before I begin reading, it's a good idea to
   A. Check to see if I have read this story before.
   B. Use my questions and guesses as a reason for reading the story.
   C. Make sure I can pronounce all of the words before I start.
   D. Think of a better title for the story.

8. Before I begin reading, it's a good idea to
   A. Think of what I already know about the things I see in the pictures.
   B. See how many pages are in the story.
   C. Choose the best part of the story to read again.
   D. Read the story aloud to someone.

9. Before I begin reading, it's a good idea to
   A. Practice reading the story aloud.
   B. Retell all of the main points to make sure I can remember the story.
   C. Think of what the people in the story might be like.
   D. Decide if I have enough time to read the story.

10. Before I begin reading, it's a good idea to
    A. Check to see if I am understanding the story so far.
    B. Check to see if the words have more than one meaning.
    C. Think about where the story might be taking place.
    D. List all of the important details.

II. In each set of four, choose the one statement which tells a good thing to do to help you understand a story better *while* you are reading it.

11. While I'm reading, it's a good idea to
    A. Read the story very slowly so that I will not miss any important parts.
    B. Read the title to see what the story is about.
    C. Check to see if the pictures have anything missing.
    D. Check to see if the story is making sense by seeing if I can tell what's happened so far.

12. While I'm reading, it's a good idea to
    A. Stop to retell the main points to see if I am understanding what has happened so far.
    B. Read the story quickly so that I can find out what happened.
    C. Read only the beginning and the end of the story to find out what it is about.
    D. Skip the parts that are too difficult for me.

13. While I'm reading, it's a good idea to
    A. Look all of the big words up in the dictionary.
    B. Put the book away and find another one if things aren't making sense.
    C. Keep thinking about the title and the pictures to help me decide what is going to happen next.
    D. Keep track of how many pages I have left to read.

Source: Schmitt, M.C. (1990). A questionnaire to measure children's awareness of strategic reading processes. *The Reading Teacher, 43,* 454-461.

14. While I'm reading, it's a good idea to
    A. Keep track of how long it is taking me to read the story.
    B. Check to see if I can answer any of the questions I asked before I started reading.
    C. Read the title to see what the story is going to be about.
    D. Add the missing details to the pictures.

15. While I'm reading, it's a good idea to
    A. Have someone read the story aloud to me.
    B. Keep track of how many pages I have read.
    C. List the story's main character.
    D. Check to see if my guesses are right or wrong.

16. While I'm reading, it's a good idea to
    A. Check to see that the characters are real.
    B. Make a lot of guesses about what is going to happen next.
    C. Not look at the pictures because they might confuse me.
    D. Read the story aloud to someone.

17. While I'm reading, it's a good idea to
    A. Try to answer the questions I asked myself.
    B. Try not to confuse what I already know with what I'm reading about.
    C. Read the story silently.
    D. Check to see if I am saying the new vocabulary words correctly.

18. While I'm reading, it's a good idea to
    A. Try to see if my guesses are going to be right or wrong.
    B. Reread to be sure I haven't missed any of the words.
    C. Decide on why I am reading the story.
    D. List what happened first, second, third, and so on.

19. While I'm reading, it's a good idea to
    A. See if I can recognize the new vocabulary words.
    B. Be careful not to skip any parts of the story.
    C. Check to see how many of the words I already know.
    D. Keep thinking of what I already know about the things and ideas in the story to help me decide what is going to happen.

20. While I'm reading, it's a good idea to
    A. Reread some parts or read ahead to see if I can figure out what is happening if things aren't making sense.
    B. Take my time reading so that I can be sure I understand what is happening
    C. Change the ending so that it makes sense.
    D. Check to see if there are enough pictures to help make the story ideas clear.

Source: Schmitt, M.C. (1900). A questionnaire to measure children's awareness of strategic reading processes. *The Reading Teacher, 43,* 454-461.

METACOMPREHENSION STRATEGY INDEX (continued)

III. In each set of four, choose the one statement which tells a good thing to do to help you understand a story better *after* you have read it.

21. After I've read a story, it's a good idea to
    - A. Count how many pages I read with no mistakes.
    - B. Check to see if there were enough pictures to go with the story to make it interesting.
    - C. Check to see if I met my purpose for reading the story.
    - D. Underline the causes and effects.

22. After I've read a story, it's a good idea to
    - A. Underline the main idea.
    - B. Retell the main points of the whole story so that I can check to see if I understood it.
    - C. Read the story again to be sure I said all of the words right.
    - D. Practice reading the story aloud.

23. After I've read a story, it's a good idea to
    - A. Read the title and look over the story to see what it is about.
    - B. Check to see if I skipped any of the vocabulary words.
    - C. Think about what made me make good or bad predictions.
    - D. Make a guess about what will happen next in the story.

24. After I've read a story, it's a good idea to
    - A. Look up all of the big words in the dictionary.
    - B. Read the best parts aloud.
    - C. Have someone read the story aloud to me.
    - D. Think about how the story was like things I already knew about before I started reading.

25. After I've read a story, it's a good idea to
    - A. Think about how I would have acted if I were the main character in the story.
    - B. Practice reading the story silently for practice of good reading.
    - C. Look over the story title and pictures to see what will happen.
    - D. Make a list of the things I understood the most.

Source: Schmitt, M.C. (1900). A questionnaire to measure children's awareness of strategic reading processes. *The Reading Teacher, 43,* 454-461.

Appendix 1 – Tests - Reading Awareness Survey

There's more than one way to cope when you run into difficulties in your reading. Which ways are the best? Under each question below, put a checkmark beside all the responses you think are effective.

1. What do you do if you encounter a word and you don't know what it means?
   a. Use the words around it to figure it out.
   b. Use an outside source, such as a dictionary or an expert.
   c. Temporarily ignore it and wait for clarification.
   d. Sound it out.

2. What do you do if you don't know what an entire sentence means?
   a. Read it again.
   b. Sound out all the difficult words.
   c. Think about the other sentences in the paragraph.
   d. Disregard it completely

3. If you are reading science or social studies material, what would you do to remember the important information that you read?
   a. Skip parts you don't understand.
   b. Ask yourself questions about the important ideas.
   c. Realize that you need to remember one point rather than another.
   d. Relate it to something you already know.

4. Before you start to read, what kind of plans do you make to help you read better?
   a. No specific plan is needed; just start reading toward completion of the assignment.
   b. Think about what you know about the subject.
   c. Think about why you are reading.
   d. Make sure the reading can be finished in as short a time as possible.

5. Why would you go back and reread an entire passage over again?
   a. You didn't understand it.
   b. To clarify a specific or supporting idea.
   c. It seemed important to remember.
   d. To underline or summarize for study.

6. Knowing that you don't understand a particular sentence while reading involves understanding that:
   a. The reader may not have developed adequate links or associations for new words or concepts introduced in the sentence.
   b. The writer may not have conveyed the ideas clearly.
   c. Two sentences may purposely contradict one another.
   d. Finding meaning for the sentence needlessly slows down the reader.

7. As you read a textbook, which of these do you do?
    a. Adjust your pace depending on the difficulty of the material.
    b. Generally read at a constant, steady pace.
    c. Skip the parts you don't understand.
    d. Continually make predictions about what you are reading.

8. While you read, which of these are important?
    a. Know when you know, and when you don't know key ideas.
    b. Know what it is that you know in relation to what is being read.
    c. Know that confusing text is common and usually can be ignored.
    d. Know that different strategies can be used to aid understanding.

9. When you come across a part of a text that is confusing, what do you do?
    a. Keep on reading until the text is clarified
    b. Read ahead and look back if the text is still unclear.
    c. Skip those sections completely; they are usually not important.
    d. Check to see if the ideas expressed are consistent with one another.

10. Which sentences are the most important in the chapter?
    a. Almost all of the sentences are important; otherwise, they wouldn't be there.
    b. The sentences that contain important details or facts.
    c. The sentences that are directly related to the main idea.
    d. The ones that contain the most details.

To administer the questionnaire, the student needs to point to the face which best describes their answer. Introduce the sheet of faces with the practice questions. The faces relate to the following five responses:

- *I know I can't*
- *I think I can't*
- *I'm half and half sure*
- *I think I can*
- *I know I can*

Record the student's response to a question by ticking the appropriate box.

The Self-efficacy scales have been adapted from those designed by James W Chapman & William E Tunmer, Massey University New Zealand, 2002.

Self-efficacy scales

Name: _____ Date: _____

Pre-testing phase ❑ Post-testing phase ❑   or Review Session: _____

I'm going to ask you how you feel about some things you do when you read. It isn't a test. There are no right and wrong answers. It is just about you and what you feel. First of all for practice I'm going to ask you how sure you are about doing some every day things. Each time you can say:

I know I can't	I think I can't	I'm half and half sure	I think I can	I know I can
❑	❑	❑	❑	❑

Let's practise with these things. How sure are you that you can drink a glass of Coke. If you know you can, point to this square (far right), if you think you can point to this square, if you are not sure either way point to this square, if you think you can't point to this square and if you know you can't, point to this square (far left).

How sure are you that you can

1	catch a ball?	❑ ❑ ❑ ❑ ❑
2	eat a cake?	❑ ❑ ❑ ❑ ❑
3	spell supercalifragilisticexpialidocious?	❑ ❑ ❑ ❑ ❑
4	ride a horse?	❑ ❑ ❑ ❑ ❑

How sure are you that you can

1	work out new words?	❑ ❑ ❑ ❑ ❑
2	understand each sentence?	❑ ❑ ❑ ❑ ❑
3	correct any mistakes you make?	❑ ❑ ❑ ❑ ❑
4	put together the ideas in the story?	❑ ❑ ❑ ❑ ❑
5	say each word?	❑ ❑ ❑ ❑ ❑
6	remember what happens in the story as you read it?	❑ ❑ ❑ ❑ ❑
7	read smoothly?	❑ ❑ ❑ ❑ ❑
8	remember words you have read lots of times already?	❑ ❑ ❑ ❑ ❑
9	make a picture in your mind as you read?	❑ ❑ ❑ ❑ ❑
10	tell me what the story is about when you have finished it?	❑ ❑ ❑ ❑ ❑
11	answer questions about the story?	❑ ❑ ❑ ❑ ❑
12	read fast enough to keep the ideas in your mind?	❑ ❑ ❑ ❑ ❑

Please tick only one box.

1.	If you come to a word you don't know when you are reading would you	try to **work out** what the word is?	**wait** for someone to tell you?
2.	If you made a mistake in reading would you	**do nothing** about it?	try to **fix** it up?
3.	When you find words hard to read do you	**work them out**?	**give up** on them?
4.	When you read a sentence that doesn't make sense do you	**go on reading** because it doesn't really matter?	**read it again** to try to understand it better?
5.	When you find a story you are reading hard to understand do you	**not worry** about it because you can't understand every story?	**try harder** to understand it?
6.	When you have trouble working out how to say words do you	find a way to get them **right**?	think you will get them **wrong** no matter what you do?

Appendix 1 – Tests – Metacognitive Strategy Checklist

Metacognitive Strategies Check List

Before Reading	Pre	1	2	3	4	5	6	7	8	9	10	Post
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 about this topic												
Make connections to what the story or topic reminds me of												
Use the title & 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 retell 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 (predictions) about what is going to happen next												
Try to answer the questions I ask myself												
Try to see if my guesses / predictions 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 how the story fits with things I already knew about before I read the story												
Think about what made me good or bad predictions												
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, dislike or found interesting												

Source: Schmitt, M.C. (1900). A questionnaire to measure children's awareness of strategic reading processes. *The Reading Teacher, 43,* 454-461.

Appendix 2 - Sequence of Lessons

Session	Goal	Teaching Strategy	Teaching & Learning Activities	Evaluation of Lesson
1	To evaluate existing knowledge that the children have in regards to Metacognitive strategies – before, during & after reading. To demonstrate that there are other strategies that can be used to assist with their reading. To demonstrate and begin developing the inner conversation readers have when reading text.	Questioning & brainstorming strategies to ascertain children existing knowledge and that they can verbalise this knowledge. Teacher modelling to demonstrate how to use effectively the Metacognitive strategies. Teacher modelling to demonstrate effective use of the inner conversation readers have to assist them with their reading.	**Introductory Lesson:** Pose the question to the children: What do you do to help you read & understand what you read, before, during & after reading. Brainstorm with the children strategies / reading actions they could use before, during & after reading to help them understand the text better. Make a list. Give out prompt chart & compare it to the list the students have made. Pose questions: Why would we use these strategies? How will it help our reading? Introduce strategies from each of the areas – before, during & after that the children are unfamiliar with and don't already use when reading (based on pre testing – MSI) Using the 'Read To' strategy - Model these strategies to demonstrate a reader's inner conversation.	The lesson began well – children seemed excited about doing some group work about reading. I posed the question: What do you do to help you read & understand what you read, before, during & after reading. Results of brainstormed list of strategies **Before**: • Look at the title / cover / picture to find out what the book may be about. • Look at the pictures in the story to help know what the text / story is about / says. • Look at the blurb at the back of the book for an overview 9of what the book is about – this help with the decision of reading the book. **During:** • Re-read a word / sentence to help understand the text. • Sound out words to help read unknown words • Read on to help understand unknown word. **After**: • Retell the story in our own words • Check to see if you got the words (unknown) right. Going through the prompt cards after also reminded the children of other strategies and introduced new strategies that they didn't know about.
2	To practise and demonstrate by thinking aloud, the inner conversation readers have with the text. To demonstrate and practise other strategies that can be used to assist children with their reading.	Teacher modelling to demonstrate how to use effectively the Metacognitive strategies. Teacher modelling to demonstrate effective use of the inner conversation readers have to assist them with their reading. Children using 'shared reading' strategy to practise using the Metacognitive strategies introduced during the session.	Review strategies from the last lesson – go through the prompt chart with the children. Introduce new strategies that are to be focussed on during this lesson. Strategies from 'What we should do before we read…" Using the 'Read To' strategy - Model these strategies to demonstrate a reader's inner conversation. Introduce a book that the children are going to read in a 'shared reading' strategy –'A bike for Brad'. Using the Metacognitive strategies the children practise using these strategies during the reading of the text. **Review the Self Management strategies** Review with the children the Metacognitive strategies that have been introduced during this lesson and past lessons and discuss how they assist the reader in understanding the text. Share time – Students articulate learning gained from the session.	Began the lesson reviewing the strategies that the children came up with in the brainstorm – affirming what they know. Went through the strategies they could use before they read and discussed these and made connections to their reading practice. Interesting to note that when we were discussing the purpose for reading – the only answers they could come up with involved improving / practising their reading – the thought of reading for enjoyment wasn't even mentioned. When practising these strategies in the share reading capacity – we discussed different types of questions and each of the children formulated one or two that they would like to know based on the book. Also based on their own knowledge of the question they were able to formulate questions that were probably a bit too extensive for a fictional book. Had the book been factual then the questions may have been more appropriate.
3	To practise and demonstrate by thinking aloud, the inner conversation readers have with the text. To demonstrate	Teacher modelling to demonstrate how to use effectively the Metacognitive strategies. Teacher modelling to demonstrate effective use of the inner conversation readers have to assist them with their reading.	Review strategies from the last lesson/s – go through the prompt chart with the children. Introduce new strategies that are to be focussed on during this lesson. Strategies from 'What we should do before we read…"	The children did really well remembering the Before we read strategies that we have covered so far. There were only a few of the strategies on the prompt cards that the children didn't recall. The children are working well but I have found that their concentrate begins waning around the ¾ hour mark so I need to keep

	and practise other strategies that can be used to assist children with their reading.	Children using 'shared reading' strategy to practise using the Metacognitive strategies introduced during the session.	Introduce new strategies that are to be focussed on during this lesson. Using the 'Read To' strategy - Model these strategies to demonstrate a reader's inner conversation. Introduce a book that the children are going to read in a 'shared reading' strategy – 'Hannah's Hiccups'. Using the Metacognitive strategies the children practise using these strategies during the reading of the text. **Review the Self Management strategies** Review with the children the Metacognitive strategies that have been introduced during this lesson and past lessons and discuss how they assist the reader in understanding the text. Share time – Students articulate learning gained from the session.	the instruction short, sharp and no longer the 45 minutes.
4	To practise and demonstrate by thinking aloud, the inner conversation readers have with the text. To demonstrate and practise other strategies that can be used to assist children with their reading.	Teacher modelling to demonstrate how to use effectively the Metacognitive strategies. Teacher modelling to demonstrate effective use of the inner conversation readers have to assist them with their reading. Children using 'shared reading' strategy to practise using the Metacognitive strategies introduced during the session.	Review strategies from the last lesson/s – go through the prompt chart with the children. Introduce new strategies that are to be focussed on during this lesson. Strategies from 'What we should do before we read…" Using the 'Read To' strategy - Model these strategies to demonstrate a reader's inner conversation. Introduce a book that the children are going to read in a 'shared reading' strategy - Dogs. Using the Metacognitive strategies the children practise using these strategies during the reading of the text. Particular focus on formulating question about the text. **Review the Self Management strategies** Review with the children the Metacognitive strategies that have been introduced during this lesson and past lessons and discuss how they assist the reader in understanding the text. Share time – Students articulate learning gained from the session.	Reviewed the strategies we can use before reading. Children came up with: • Read the title and the cover to guess what the book is about • Look at the pictures in the book • Come up with questions you would like to know when reading the book and as a reason for reading the book • Decide why you should read the book – purpose • Make predictions and guesses about what the book could possibly be about. Children come up with the majority of strategies but seem to miss the same few each day. Particular concentrated on those strategies to try and reinforce and consolidate their knowledge. Children found it easier to come up with different questions relating to an information text. Most of the questions were literal questions where they could find the information in the text. The lesson went for 45 minutes and I seemed to maintain the children's interest for this time.
5	To practise and demonstrate by thinking aloud, the inner conversation readers have with the text. To demonstrate and practise other strategies that can be used to assist children with their reading.	Teacher modelling to demonstrate how to use effectively the Metacognitive strategies. Teacher modelling to demonstrate effective use of the inner conversation readers have to assist them with their reading. Children using 'shared reading' strategy to practise using the Metacognitive strategies introduced during the session.	Review strategies from the last lesson/s – go through the prompt chart with the children. Introduce new strategies that are to be focussed on during this lesson. Strategies from What we should do while we are reading…" Using the 'Read To' strategy - Model these strategies to demonstrate a reader's inner conversation. Introduce a book that the children are going to read in a 'shared reading' strategy - Kangaroos. Using the Metacognitive strategies the children practise using these strategies during the reading of the text. **Review the Self Management strategies** Review with the children the Metacognitive strategies that have been introduced during	Reviewed with the children the Metacognitive strategies they could use 'before reading'. Each day the list is getting a little bit bigger and some of those strategies that may not have been mentioned a lot are starting to come up more regularly. Today we moved on to strategies we use 'while reading'. When we looked at the book Kangaroo's the children started talking about things they already knew about Kangaroos. The children's existing knowledge on the topic Kangaroo's was vast as they had learnt about the topic last term so a lot of information in the book, they already knew and had previously discussed. They also spoke about what they would like to know from the book. I thought this was really good as it was unprompted – obviously the topic caught their interest – Maybe that's the key with these children!

			this lesson and past lessons and discuss how they assist the reader in understanding the text. Share time – Students articulate learning gained from the session.	
6	To practise and demonstrate by thinking aloud, the inner conversation readers have with the text. To demonstrate and practise other strategies that can be used to assist children with their reading.	Teacher modelling to demonstrate how to use effectively the Metacognitive strategies. Teacher modelling to demonstrate effective use of the inner conversation readers have to assist them with their reading. Children using 'shared reading' strategy to practise using the Metacognitive strategies introduced during the session.	Review strategies from the last lesson – go through the prompt chart with the children. Introduce new strategies that are to be focussed on during this lesson. Strategies from 'What we should do while we are reading…" Using the 'Read To' strategy - Model these strategies to demonstrate a reader's inner conversation. Introduce a book that the children are going to read in a 'shared reading' strategy – 'Camping Outside'. Using the Metacognitive strategies the children practise using these strategies during the reading of the text. **Review the Self Management strategies** Review with the children the Metacognitive strategies that have been introduced during this lesson and past lessons and discuss how they assist the reader in understanding the text. Share time – Students articulate learning gained from the session.	Reviewed last weeks work before we continued on with this week's lesson. Children's knowledge of the metacognitive strategies they can use before reading and during reading was very good. The children remembered quiet a lot of the 'before' strategies and some of the 'during' strategies from the week previous. Had a great discussion with the children over the types of questions the children should use with 'fiction' books. This made a difference in the types of questions they wanted to find out when they read the text.
7	To practise and demonstrate by thinking aloud, the inner conversation readers have with the text. To demonstrate and practise other strategies that can be used to assist children with their reading.	Teacher modelling to demonstrate how to use effectively the Metacognitive strategies. Teacher modelling to demonstrate effective use of the inner conversation readers have to assist them with their reading. Children using 'shared reading' strategy to practise using the Metacognitive strategies introduced during the session.	Review strategies from the last lesson – go through the prompt chart with the children. Introduce new strategies that are to be focussed on during this lesson. Using the 'Read To' strategy - Model these strategies to demonstrate a reader's inner conversation. Introduce a book that the children are going to read in a 'shared reading' strategy – 'The Rocket ship'. Using the Metacognitive strategies the children practise using these strategies during the reading of the text. **Review the Self Management strategies** Review with the children the Metacognitive strategies that have been introduced during this lesson and past lessons and discuss how they assist the reader in understanding the text. Share time – Students articulate learning gained from the session.	Another good lesson on the metacognitive strategies. Children are beginning to verbalize a lot more the strategies that they can use 'before' reading and 'while' they are reading and it is good to see that they are actioning the strategies when they are reading. The questions that the children wanted to know about the story were better today after the lesson yesterday and the discussion that we had. Only one of the questions that the children asked was unable to be answered in the text.
8	To practise and demonstrate by thinking aloud, the inner conversation readers have with the text. To demonstrate and practise other strategies that can be used to assist children with	Teacher modelling to demonstrate how to use effectively the Metacognitive strategies. Teacher modelling to demonstrate effective use of the inner conversation readers have to assist them with their reading. Children using 'shared reading' strategy to practise using the Metacognitive strategies introduced during the session.	Review strategies from the last lesson – go through the prompt chart with the children. Introduce new strategies that are to be focussed on during this lesson. Using the 'Read To' strategy - Model these strategies to demonstrate a reader's inner conversation. Introduce a book that the children are going to read in a 'shared reading' strategy - 'The Jets and the Rockets'. Using the Metacognitive strategies the children	Children showed good recall of the 'before' strategies and the 'during' strategy they can use when reading. Began looking at the 'after' metacognitive strategies with the children. I was very pleased to see that the children were making connections between the other strategies.

	their reading.		practise using these strategies during the reading of the text. **Review the Self Management strategies** Review with the children the Metacognitive strategies that have been introduced during this lesson and past lessons and discuss how they assist the reader in understanding the text. Share time – Students articulate learning gained from the session.	
9	To practise and demonstrate by thinking aloud, the inner conversation readers have with the text. To demonstrate and practise other strategies that can be used to assist children with their reading.	Teacher modelling to demonstrate how to use effectively the Metacognitive strategies. Teacher modelling to demonstrate effective use of the inner conversation readers have to assist them with their reading. Children using 'shared reading' strategy to practise using the Metacognitive strategies introduced during the session.	Review strategies from the last lesson – go through the prompt chart with the children. Introduce new strategies that are to be focussed on during this lesson. Using the 'Read To' strategy - Model these strategies to demonstrate a reader's inner conversation. Introduce a book that the children are going to read in a 'shared reading' strategy – 'Monkey Tricks'. Using the Metacognitive strategies the children practise using these strategies during the reading of the text. **Review the Self Management strategies** Review with the children the Metacognitive strategies that have been introduced during this lesson and past lessons and discuss how they assist the reader in understanding the text. Share time – Students articulate learning gained from the session.	Another good lesson – the children are doing very well recall the strategies even though sometimes they need a little prompting. They seem quite confident working in the group and discussing the various things that they can do before, during and after reading.
10	To practise and demonstrate by thinking aloud, the inner conversation readers have with the text. To demonstrate and practise other strategies that can be used to assist children with their reading.	Teacher modelling to demonstrate how to use effectively the Metacognitive strategies. Teacher modelling to demonstrate effective use of the inner conversation readers have to assist them with their reading. Children using 'shared reading' strategy to practise using the Metacognitive strategies introduced during the session.	Review strategies from the last lesson – go through the prompt chart with the children. Introduce new strategies that are to be focussed on during this lesson. Using the 'Read To' strategy - Model these strategies to demonstrate a reader's inner conversation. Introduce a book that the children are going to read in a 'shared reading' strategy – 'In the days of the dinosaurs when the Volcano erupted'. Using the Metacognitive strategies the children practise using these strategies during the reading of the text. **Review the Self Management strategies** Review with the children the Metacognitive strategies that have been introduced during this lesson and past lessons and discuss how they assist the reader in understanding the text. Share time – Students articulate learning gained from the session.	The last session of the ten consecutive lessons on the metacognitive strategies the children can use 'before', 'while' and 'after' they read. As a group the children came up with an extensive list of before strategies – nearly remembering every one. They were able to tell me a number of strategies they could use while they were reading and they were able to recall a good list of strategies for after they read. If today lesson is a good indicator then I expect to see a good improvement in the children score on the Metacognitive Strategy Index and the Reading Awareness Survey.

Appendix 3 - Texts used during Sequenced lessons

Session	Text	Genre	Level	Series	Pages
1	Two stupid cats	Fiction	19	PM Readers	14
2	A bike for Brad	Fiction	19	PM Readers	16
3	Hannah's Hiccups	Fiction	18	PM Readers	16
4	Dogs	Information	16	PM Readers	16
5	Kangaroos	Information	18	PM Readers	16
6	Camping Outside	Fiction	16	The Book Bank	16
7	The Rocket Ship	Fiction	17	PM Readers	16
8	The Jets and the Rockets	Fiction	18	PM Readers	16
9	Monkey Tricks	Fiction	17	PM Readers	16
10	In the days of the dinosaurs when the Volcano erupted	Fiction	17	PM Readers	16

Appendix 4 – Prompt chart of Metacognitive strategies

Before I read I should….

- *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 about this topic*
- *Make connections to what the story or topic reminds me of*
- *Use the title & 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 I should….

- *Check to see if the story is making sense*
- *Stop to retell 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 (predictions) about what is going to happen next*
- *Try to answer the questions I ask myself*
- *Try to see if my guesses / predictions 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 finish reading I should….

- *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 how the story fits with things I already knew about before I read the story*
- *Think about what made me good or bad predictions*
- *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, dislike or found interesting*

Adapted from: Schmitt, M.C., (1900), A questionnaire to measure children's awareness of strategic reading processes *The Reading Teacher, 43,* 454-461.

Before I read I should….

- *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 about this topic*
- *Make connections to what the story or topic reminds me of*
- *Use the title & 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*

Adapt from: Schmitt, M.C., (1900), A questionnaire to measure children's awareness of strategic reading processes. *The Reading Teacher, 43,* 454-461.

While I read I should….

- *Check to see if the story is making sense*
- *Stop to retell 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 (predictions) about what is going to happen next*
- *Try to answer the questions I ask myself*
- *Try to see if my guesses / predictions 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*

Adapt from: Schmitt, M.C., (1900), A questionnaire to measure children's awareness of strategic reading processes. *The Reading Teacher, 43,* 454-461.

After I finish reading I should….

- *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 how the story fits with things I already knew about before I read the story*
- *Think about what made me good or bad predictions*
- *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, dislike or found interesting*

Adapt from: Schmitt, M.C., (1900), A questionnaire to measure children's awareness of strategic reading processes. *The Reading Teacher, 43,* 454-461

Appendix 6 – CEO Minimum standards and Targets

Appendix 2

CEOM Minimum Standards and Targets

	ROL	Letter ID	HRSW	Word	Burt	CAP	Writing Vocab	Peters Spelling
End of Prep	< 13 at risk / Target 20+	<20 at risk / Target 50+	<20 at risk / Target 30+	<10 at risk / Target 10+	<20 at risk / Target 30+	< 12 at risk / Target 17+	< 20 at risk / Target 30+	
End of Yr 1	Target 28+	Target 54	Target 37	Target 15	Target 40+	Target 20+	*Target 40+	
End of Yr 2					Target 60+			Target 70+

Table 2

* Greater sophistication of how to generate words expected

10

51