Action Research Task

Hypothesis: That explicit teaching of self-management strategies to low achieving readers increases their self-efficacy.

Abstract

A great deal of research endorses the view that student reading can be improved by teaching students **cognitive strategies** such as; word recognition and comprehension. In particular, that low achieving readers can make significant improvement in their reading ability as a result of this form of instruction. It presumes that when students have a bank of strategies to draw on they will consequently become proficient readers.

Other researchers contend that **motivational factors** such as being **learning focused or being performance focused** alter the impact on the level of student function. That is, learning focused students tend to use **deep level cognitive** processing. These students tend to use strategies such as; monitoring of comprehension and paraphrasing. Performance focused students tend to use **surface level processing** cognitive processing strategies such as memorization and copying. (Anderman 1992)

Despite attention paid to both instruction related to cognitive and motivational factors, many students continue to remain struggling readers. The challenge for struggling readers, is that they encounter repeated experiences of failure, which in turn influences; strategic behaviours, reduces their motivation to read and ultimately serves to create self-defeating attitudes. Such students could be referred to as having low self–efficacy. Self-efficacy is defined as a **person's perception of themselves as a reader.**

Few studies have targeted the relationship between self-efficacy and self-management strategies.

The present study examines a group of Year Two students who demonstrate behaviors consistent with low self-efficacy. It was believed that the explicit teaching of self-management strategies would increase self-efficacy.

The results of the study indicate that self-efficacy could be significantly improved for most students. An indirect consequence of improving self-efficacy, was that it improved students strategic thinking. Therefore, it was clear that self-management and self-efficacy were interrelated and reciprocal in nature. Instruction that involved a combination of modelling, rehearsal and verbalisation of strategies proved to be powerful.

Introduction

Research in the area of reading acquisition emphasizes two key elements. These are instruction that promotes the development of cognitive strategies and motivation factors. (Baker and Wigfield 1999, Anderman 1992, Shunk and Rice 1993)

 Anderman (1992) identifies two types of cognitive processing. These are; **deep level cognitive processing** and **surface level processing**. **Deep level cognitive** processing means that students are engaged in strategies such as; monitoring comprehension, paraphrasing and summarizing material. Students demonstrating these behaviours can be described as being motivated by **task goals**. Task goal direct the students' energy to

> "task-mastery, problem solving and the intrinsic value of learning."
>
> (Anderman 1992 p.1)

These students; persist on task, select different strategies for different reading tasks and can change strategies when they are not working, connect new material to what has been previously learned and take time to reflect on their learning. These characteristics are generally attributed to "good readers."
 Students who adopt **ability focused** goals use **surface level cognitive processing**. This involves; memorization, copying and rehearsal of information.

Behaviours that they demonstrate include; task avoidance and giving up.
Students direct their focus to their performance compared to that of others.
Poor readers; focus on a handful of strategies, persist with ineffectual strategies
and show low persistence on tasks. (Horner and Sherri 2002)

Whilst evidence does exist that strategy instruction can support struggling
readers. (Schunk & Rice 1992) Anderman claims that,

> "self-efficacy is the most powerful predictor of success"

> (Anderman, 1992,p.3)

Very little research exists to sufficiently explore the issue of self-efficacy as a
significant factor contributing to reading difficulty. In addition to this, Anderman's
study focuses on older , Junior High School students. Clay (1991)would argue
that students at this stage in their reading development may have habituated
ineffectual strategies as a result of no early intervention or inappropriate
intervention.

Therefore, it may be reasonable to say that efficient readers do need to access
range of strategies. Further to this, they need to learning to become
discriminating about how and when to use these. The challenge for struggling
readers, is that they encounter   repeated experiences of failure, which in turn
influences strategic behaviours, reduces their motivation to read and ultimately

serves to create self-defeating attitudes. This in turn perpetuates the cycle of failure.(Schunk 1993, Baker and Wigfield 1999, Chapman and Tunmer 2000)

For the purposes of this paper self-efficacy is defined as a **person's perception of themselves as a reader**. That is, their **own view of their ability** to; attempt, learn, control and manage the reading task. (Horner and Sherri, 2002)

Having a positive self-efficacy is about building up a **positive inner dialogue or self-script** .(Schunk 1993) This self-script pertains to the meta-cognitive domain of thinking and acts as an enabler of learning. Students with high self-efficacy are freed from performance anxiety and are better able to attempt new tasks. Furthermore, this positive self-script translates into self-management or self-regulation actions such as ;planning, reviewing and self monitoring. (Chapman and Tunmer 2000)Therefore, self-management and self-efficacy are both interrelated and reciprocal in nature.

The aim of this paper is to examine how explicit teaching of self-management strategies increases students self-efficacy. "Before reading strategies " were the prime focus of the teaching procedure. These strategies were targeted because they support the reader by helping them to plan for the reading encounter and to begin to build a meaning framework. (Fountas & Pinell 1996)

Method

<u>Design</u>

The design of the research used the OXO design. An initial reading self-efficacy survey was conducted followed by the intervention. At the conclusion of the tenth session, the initial survey was re-administered. A "Control group" was given the same survey in the same time frame.

<u>Participants</u>

The four students chosen to participate had four very distinctive reading difficulties. These are listed in the table below.

Student A	Difficulties with blending words of three or more syllables. Difficulties with rapid automatized naming. Responds emotionally and cries when frustrated during learning.
Student B	Very poor oral language structures. Difficulties with expressive language. Limited vocabulary impacts on labelling of items in text. Withdraws, no risk-taking evident. Gives up easily.
Student C	Rate of reading slow and therefore impacting on comprehension at sentence level. Very hesitant Will not attempt new words, withdraws and engages in help seeking behaviour.
Student D	Difficulties staying on task. High Distractibility whilst reading independently. Often needed to be removed from group to complete task in general but in particular during reading. Vocabulary limited and expressive language poor.

Despite these differences they shared common characteristics, which are indicative of poor self-efficacy. Observed behaviors in the classroom included; passivity during reading classes and reading related activities, disengagement and low risk taking. They did not automatically choose reading as an activity for pleasure or entertainment.

Their background histories highlighted a pattern of reading difficulties since their initial entry into the Prep year. During the Prep year, they were given additional daily, small group assistance by the Classroom Teacher and were closely monitored.

In Year One they all received Reading Recovery Intervention. Student C received 25 weeks of instruction, even though Reading Recovery was designed as a 20 week program. All students are currently in Year two and their instructional levels using the PM Benchmark texts range between 20 to 22. Although this does not seem a major problem, it was noted that meaning is lost for these students at the topic, and sometimes sentence level. The remainder of the class is operating at an independent reading level with control of literal comprehension at Levels 28 and above.

The four students chosen for the control group presented with similar difficulties. They had also received Reading Recovery support in Year One. They were still being monitored in Year Four. It was felt that these students were a good control group, as there would be minimal cross-pollination of teaching strategies. The researcher was directly involved in teaching students from Years Prep to Three.

Materials used included the following

1. PM Benchmark texts and Running Records

2. A self-efficacy survey was used. It consisted of an affective scale (Open ended sentence task (modified from Chapman and Tunmer 19 Self-Efficacy Scales- 2000) and drawing task. (See Appendix 1)

3. Body tapping task as memory hook (See Appendix 2)

4. Snap cards for rehearsal and memorization of task (See Appendix 3)

5. Range of instructional reading texts

6. Primary strategy used was explicit teacher modelling and Guided

    Reading book orientation

Procedure

Each session was to be of thirty minutes in duration, however on three occasions this went to forty minutes.

The format of each session was as follows:
1. Feed-forward
Making the purpose or teaching goals of the session clear to students
2. Body tapping (see Appendix 5)
To support memorization of 5 "before reading strategies"
3. Coaching/ Modelling
Each of the five strategies was rehearsed with the teacher initially. The teacher had to show and tell the students how and why they were to use the strategy. As students confidence increased, students fulfilled the coaching/mentoring role with the remainder of the group.
4. Practise/Checking
   - Students tested the steps by reading of the text to search for clues that support prediction and ticking off each prediction when found. It was hoped that students would learn over time to see the value in the task and that they would make connection that good readers engage in these strategies automatically.
   - Teacher used particular prompts to shift responsibility to students and indicate belief in their ability.
5. Feed-back
Teacher used specific feed-back prompts. These were based on Mc Cabe and Margolis(2001) notion of "Can do.." at encouragement by identifying specifically what students were doing well.
6. Game
Students played a "Snap game" to reinforce with memorizing the steps and as a reward for staying on task.
7. Articulation/verbalizing
Students stated the 5 new strategies or any other strategies they knew
8. Extrinsic Motivation
Sticker rewards given.

It must be stated that there was some deviation to the planned 10 sessions. See table below:

Session number	Planned focus	Adaptation in teaching focus
	Self-Efficacy Survey Running Records	
1	Identifying Purpose with students (To practise what good readers do before reading)	
2	"	
3	"	
Recording of reading strategies known in reading journal.		
4	To get students and teacher to be responsible for coaching each other and take students through the 5 steps.	In lieu of "5 step Snap game – teaching of meaning of the vocabulary the teacher was using.
5	"	Used new vocabulary in lieu of Snap game
6	"	"
Recording of reading strategies known in reading journal.		
7	To get students only to coach each other through the 5 steps and report back learning to own classmates after session.	
8	"	
9	"	
Recording of reading strategies known in reading journal.		
10		
SELF EFFICACY SURVEY		

Results

The survey addressed two specific aspects of self-efficacy.

Section one

This component examined attitude and enjoyment of reading and used a scale.

Section One – "How much do you like the following ?" It was scored in the

following way

| Not at all	Not much	Sometimes	A lot of the time	Always
-2	-1	0	1	2

Section Two

This aimed at identifying what students did when they encountered various

reading difficulties. It was specifically written to be open-ended in nature as it was

important to look at their spontaneous responses for managing tasks and to see

what students would write without any prompting.

Each acceptable and appropriate response was given a score of one. For

example for the statement, when I come to a word I can't read I – the student

responded with I chunk, stretch etc. They were given a score of two.

 Student D stated that when he came to a word he didn't know- "he behaved."

This did not indicate self-management and was under control. He was

consequently not given a score for this response.

	STUDENT A		STUDENT B		STUDENT C		STUDENT D	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Section 1	4	6	2	2	4	4	9	3
Section 2	10	21	3	13	7	15	2	9
	14	27	5	15	11	19	11	12

Intervention Group

Mauve – Pre test
Dark Purple- Post Test
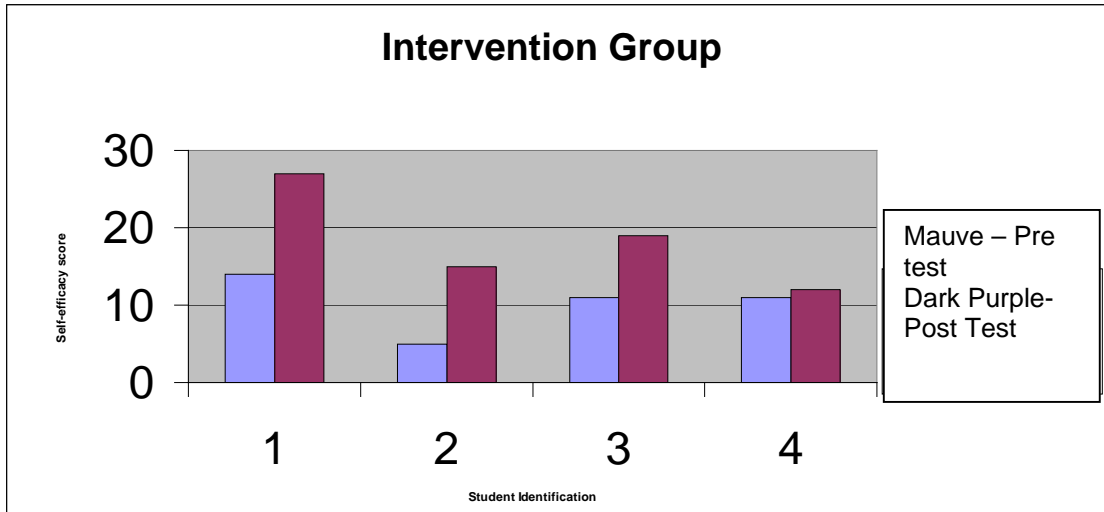
Table Two: Control Group

	STUDENT E		STUDENT F		STUDENT G		STUDENT H	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Section 1	2	2	2	4	0	0	2	1
Section 2	9	10	9	9	2	2	6	7
	11	10	11	13	2	2	8	7

Control Group

Series1
Series2
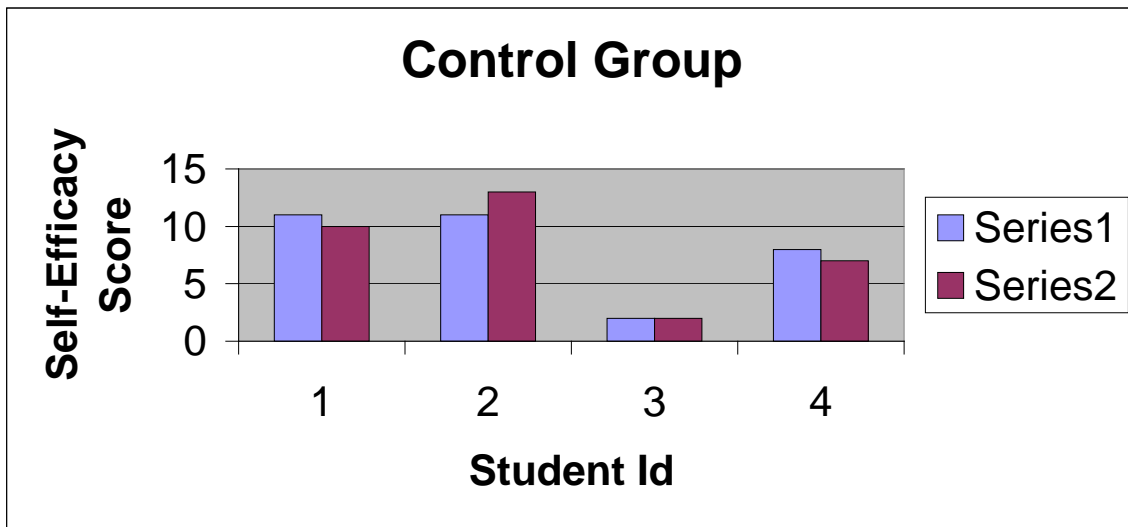
The prediction was that explicit teaching of self-management strategies would increase self efficacy. It is evident that for three students in the intervention group this was the case. In fact , Students A and C almost doubled their scores, whilst student B tripled his initial score. Section One of the table shows that although attitudes to reading may not have shifted dramatically in terms of raw score, all students felt that they had a larger pool of strategies upon which to draw and felt more able to participate as directors or conductors of their own learning.

Student D's results were extremely interesting as initially, he scored a 9 for his attitudes to reading and 2 for his strategy use. This suggests that he did not recognize that he was having difficulties. This student almost reversed his attitudinal scoring in the Post Intervention phase. He scored 3 for his attitude to reading and 11 for his self-regulation strategies.

The use of the journal "Things good readers do " in some ways mirrors the ongoing difficulties Student D was experiencing. After sessions 3, 6 and 9 students were asked to record the strategies they knew how to use.

Table Three- Student reading journal no of different strategies learned over sessions.

Student	After Session 3	After Session 6	After Session 9
A	4	12	15
B	2	8	13
C	5	12	12
D	3	5	3

It must be noted that although instruction was focused on "5 before reading strategies" if students identified others, they were not discounted. While the

students were working together, they heard each others strategies. It was ethically inappropriate to dismiss them, as the students chose to access them at the point of need and were given immediate feed-back and encouragement for using them.

Students A and C were able to verbalize and write the "before reading strategies" by session 3. Student B by session 6. Student D was still not able to do this spontaneously by Session 9. Group trends indicate that despite explicit teaching of "before reading strategies, they tended to automatically recall strategies they had learned prior to the sessions whether they were appropriate or not. At this phase of the instructional sessions there was a real concern that the reason students did not want to use the" before strategies" was because, they could see no **immediate value in learning** the five steps. For example, the chunking strategy had value because it related directly to word recognition and when used produced an instantaneous result. Whilst they initially perceived "before reading strategies" as being more abstract in nature.

In the control group, only Student F made a gain of two scores. Student G made no gains or losses. His self-efficacy was extremely low. His survey responses show that he uses the same strategy for a range of problem solving scenarios. This seems to suggest that indicates he doesn't know when to apply the strategies correctly.

Discussion

The study seems to suggest that instruction that involves combinations of; goal articulation, explicit coaching, scaffolding, mentoring, feed-back and verbalizing provided evidence of growth in self-efficacy.

However a number of limitations and issues affect the results. These could be broadly summarized under the following headings.:

- sample size,
- use of extrinsic motivation as opposed to intrinsic,
- strategy value,
- use of teaching or instructional terms,
- rate of student questioning,
- teaching style and student engagement and
- the missing ingredient.

<u>Sample Size</u>

The pool of students was limited and it would be vital to replicate this study with a larger cohort of students to ascertain the reliability of the results.

Extrinsic motivation as opposed to intrinsic motivation

There are issues with the use of extrinsic motivators such as stickers. If Anderman's(1992) proposition is correct and poor readers tend to be performance orientated rather than task orientated, then the danger may be that this group of students may begin to see their learning only in terms of the reward they will be given. Furthermore, when the rewards are removed the question that must be asked is will students continue to use the strategy. (Schunk and Rice1993)

Similarly, the body-tapping was designed to be used as a memory device. This externalization of the before reading strategies was enjoyed by the children. However, its inherent flaw is that students may interpret it as a learning task distinct from the reading process. As the sessions progressed the children actually shortened the words and in a sense developed their own short–hand. One would hope that this is the beginning of what Schunk(1993) refers to as **strategy fading**, where students begin to internalize scripts. In light of this, it would be beneficial to monitor this group over the next few years to ascertain the long term benefits of the intervention.

Strategy value

 Students began to see the value in learning the "before reading strategies when they were explicitly told that such strategies were used by "good readers." This had to be further expanded on by identifying the students who were successful in reading by name. They were surprised that students they regarded highly "did

these strategies in their head before they began reading." The students' role in the learning shifted when they could see value in the strategies they were using and made links with the covert strategies proficient readers used. It was a significant discovery for the group. Further evidence of this is located in the survey statements about what students do before they begin reading. Students may have misunderstood the task, however, student A immediately registered that it was important to look at the cover and title. The Post Intervention responses are clearly self-regulating ones. Whilst those Pre-test are of a more diverse nature. (See Table Four for transcript of survey statements)

Table Four: Strategies students engaged in before they began to read

Student	Before I begin reading I..	
	Pre Intervention statement	Post Intervention Statement
A	▪ look at the front cover, title and picture	▪ Think about the topic ▪ Picture/title/blurb ▪ Words I might find ▪ It is a story or not ?
B	▪ pick a book	▪ Look at the blurb ▪ Think about the topic ▪ Look at the title ▪ Words I might find
C	▪ look for a nice place to sit	▪ Think about the topic ▪ How will I know ▪ Look at the picture/title/blurb ▪ Words I might find ▪ Story or not ?
D	▪ I like looking at the front cover	▪ Think about the topic ▪ Read the blurb ▪ Think about the title
Control		
E	▪ I open the book	Read and follow the book
F	▪ I pick a book	Ask myself is this a good book?
G	▪ begin to practise	Ask mum to help me

| H | ▪ I get a book I want to read | I go somewhere quiet |

Use of teaching or instructional terms

The use of teacher language tended to be a blocker for all the students within the intervention group. For example, the instructions involved the used of the word "prediction." As sessions progressed and students became more confident, Student B asked for clarification of this word. It then became apparent, that although they were parroting the word, no-one in the group actually knew what a prediction was. The group had been exposed to this term since their Prep year. This was not an intended outcome of the research but has real implications for monitoring the instructional language used and alerting us to the fact that we need to be more careful about assuming that students can fully participate in the lesson. Similarly , other concepts about reading caused confusion. Students had a disagreement because they thought that a story, non-fiction text and narrative were different things. This language barrier, excludes students from full participation in the instruction. These language difficulties may only be pertinent to the needs of this group. However, repeated experiences of this type of teaching and learning would, in part, serve to explain the high frustration levels, distractibility and consequent low self-efficacy of these students.

Tapes of the sessions show that it was very easy to slip into, "**thinking for the students** " without giving them sufficient **'think time'** and acknowledgment of them behaving as and being capable readers. (See Appendix 5 for Teaching Scripts and Prompts) Tapes of the sessions also reveal the teacher began to deviate from the set script by introducing use of an unexpected prompt. That is – "Never give up." Two of the students have actually recorded this in their journals as a reading strategy. At the surface level this prompt may appear to be helpful and increase students optimism about reading, but it may actually be taking up valuable memory space for more effective strategies.

Rate of student questioning

Another unexpected by product of the student participation in the intervention was the significant amount of increased student talk and the number of questions students asked as sessions progressed. Although the sessions were taped it was not possible within the given time constraints to count the number of seeking questions and student initiated conversations. With regards to their general learning in the classroom, the teacher reported that three of the students whose self-efficacy scores had increased, were actively going to her to ask for clarification about both content and sequence of instruction. This is as distinct from their previous "help seeking behaviours . This implies a degree of transference, however, this data is tenuous as it is anecdotal in nature.

What is clear from the tapes is that students over time felt comfortable and confident in asking for more information . Harvey and Gouvdis (state that when readers asked questions they are demonstrating that they are engaged in "thoughtful reading." (2000, p.11) In other words, they are taking responsibility for their learning and are becoming more strategic readers.

Teaching style and student engagement

The instruction initially required the researcher to be extremely animated when giving progress feedback linked to performance. At the outset of the sessions it was necessary in order to get the students to "tune in to" the instruction. This animation was particularly necessary during **the modelling of component** of the sessions. Implications for general classroom teaching make this a very physically demanding and difficult energy level to sustain. Although periods of concentrated effort sandwiched between the games proved to be helpful.

Quality of survey material and data collection

Although the results seem promising they may be flawed by virtue of the format and content self-efficacy surveys . That is, they may not have been formulated in a way which was easy to understand and use.

The missing ingredient

It was not possible to cater for the individual needs of students. For example, Student D enjoyed participating in the game components of the sessions, he did

not achieve great improvement in his self-efficacy scores. He found it very difficult to concentrate when working on text. It was noted that he made limited eye-contact during the modeling phase of the lesson and during the checking part of the session. He often gave answers he thought the teacher was expecting. On one occasion he was asked what he needed to do before beginning reading. He stated that he needed to prepare his writing plan. It may have been that the instruction provided only served to confuse this student even more. He found verbalizing of the strategies in oral or written form extremely difficult. Schunk (1993) claims this ability is an extremely helpful for students with learning problems. As with all teaching careful observation and data collection is paramount. Clearly Student D needs sensitive monitoring in order to identify how he could be assisted further and to better match the teaching to his specific needs.

Implications for teaching

Using feed-forward where the purpose of the task was made explicit for students was not recognized as being significant in the literature nor was it within the parameters of this study to measure. However, it seemed to contribute to the students self-efficacy by giving them a barometer by which to gauge their success.

Immediate feed-back linked to acknowledging of self-directed reading behaviours was helpful. Students did not begin to perceive themselves as being capable or competent readers until about session 7 ,when they had to become responsible

for being the "teacher" .This meant that they had to provide each other with positive feed-back.

The teacher's role during the research was to become the "invisible mirror". By reflecting back to students and amplifying the strategies they could use and those they already had under control, it was hoped that the students would feel capable and empowered readers. Survey data suggests that the students were able to identify more ways in which they could take control of their reading and to this extent the study was promising. However, only time will tell, if the gains made, were of a lasting benefit.

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Appendix 1 – Self-Efficacy Survey

SELF-EFFICACY SURVEY
I am going to ask you about some things you do in school. This is not a test , and different children will have different answers.

It's important for you to be honest with your answer. Answer how you really fee, not how you think others would like you to feel.

STUDENTS NAME:_____

Year Level:_____

1. How much do you like the following:

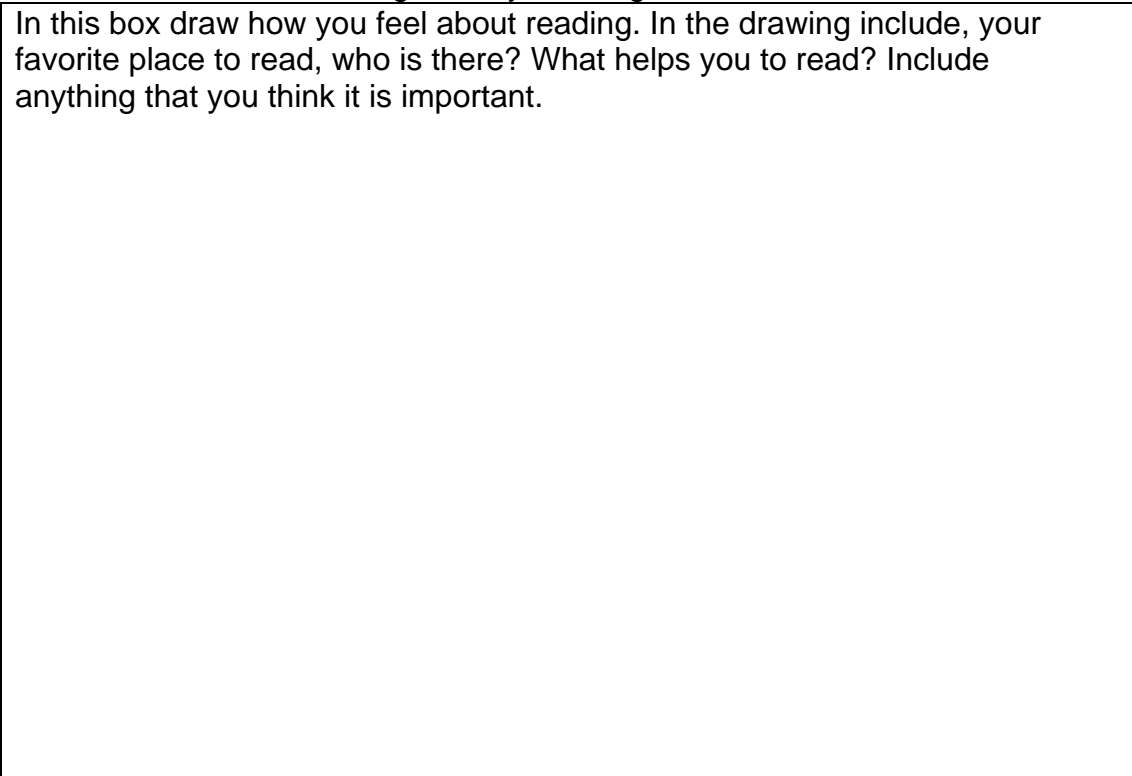|	Not at all	Not much	Sometimes	A lot of the time	Always
I enjoy reading by myself at home.					
I enjoy reading by myself in class.					
I enjoy choosing books for reading.					
I enjoy being read to in class.					
I enjoy visiting the school library.					

2. Things I can do when I read:
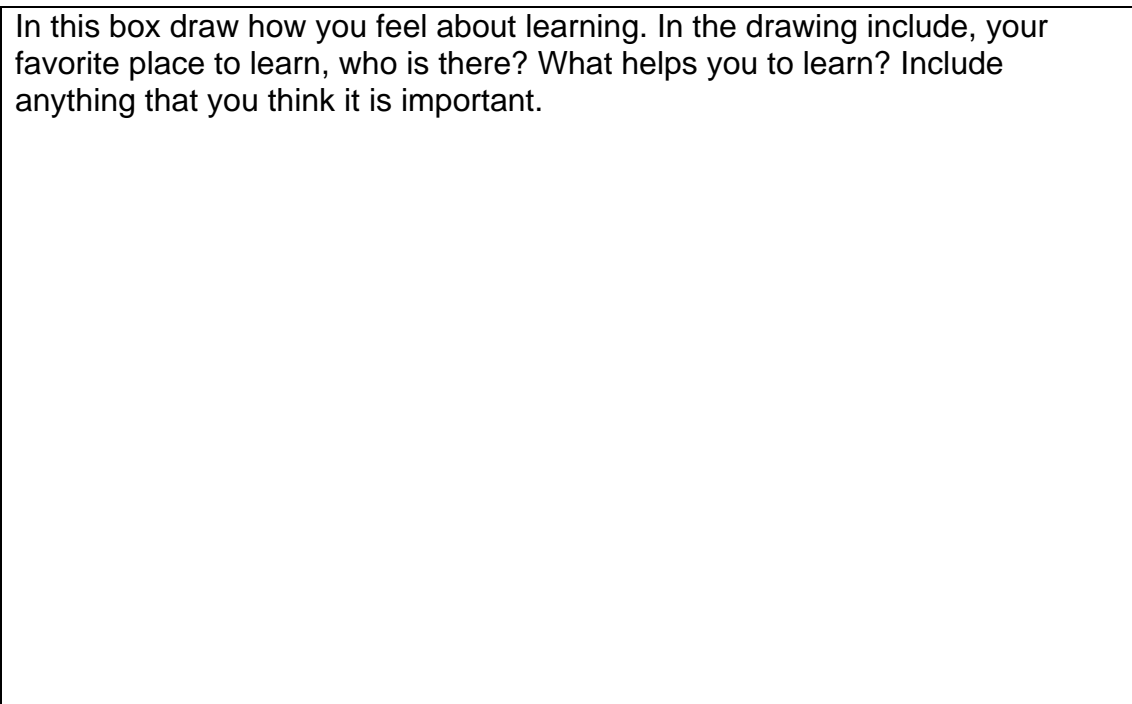(Complete these sentence starters)

a) Before I begin reading I do the following..
b) Before I begin reading a question I can ask myself is..
c) When I am reading and come to a word I don't know I..
d) When I make mistakes in reading I..
e) When I find words are hard to read I..
f) When I am reading something that doesn't make sense I..

3. How I feel about reading and my learning:

In this box draw how you feel about reading. In the drawing include, your favorite place to read, who is there? What helps you to read? Include anything that you think it is important.

In this box draw how you feel about learning. In the drawing include, your favorite place to learn, who is there? What helps you to learn? Include anything that you think it is important.

Appendix 2 – Body Tapping task

The following actions were taught to the children. Children had to tape the body part that matched the action. Only five actions were chosen as it was felt that these would be sufficient to recall. To further support memory, the actions went from top to bottom.

Action	**Language used to link action to strategy**
Tap head to indicate thinking.	Think about the topic
Tap eyes to show eyes are used for looking.	Look at the title, picture and blurb
Touch mouth – words come from the mouth.	What words might I find ?
Hands cupped in book shape and then followed by finger shaking.	Is it a story or not ?
Arms extended as though asking a question.	How will I know ?

What do I know about this **topic**?	What do I know about this **topic**?
Look at the **title**, **picture and blurb**.	Look at the **title**, **picture and blurb**.
What **words** will I find in this text?	What **words** will I find in this text?
What kind of book is it? (**Story or not**)	What kind of book is it? (**Story or not**)
How will I know?	How will I know?

narrative	narrative
story	story
fiction	fiction
guess	guess
prediction	prediction
topic	topic
big idea in book	big idea in book

subject	subject

Appendix 4 – Teaching Script
<u>Teaching Script</u>

1. Feed-forward (Making explicit the teaching goal or strategy with students)

Today we will be focusing on ….what good readers do before they read.

Good readers do this in their head before they begin.

Good readers do this quickly.

Good readers do this to help them make good predictions about what they will read.

2. Modelling/ coaching of strategy

Let me show you..

(As per book orientations)

3. Encouragement during the reading phase that was framed in terms of expectations that the child would succeed whilst reading the text.

- *You know this..*

- *What can you try..*

- *What else can you try..*

- *I know you know how to do x/y/z*

4. Feed-back after the reading

I like the way you were able to…(strectch/re-read/chunk etc)

I really like the way you didn't give up.

I really like the way you had a go.

5. Testing of strategy

Look at all the things you already knew before you began to read.

Look at all the guesses/predictions you made that we were able to check in the book.

6. At end of session – after student verbalized known strategies.

You showed me what good readers do – that's great

It's terrific you remembered what good readers do.