Teaching Year Prep students to visualise while engaged in text enhances their listening comprehension.

“The soul never thinks without an image.” - Aristotle
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Abstract

In the early primary level, students are taught to successfully decode text, however, may experience difficulties with both comprehending (during reading) and comprehension (post reading). It is common to find students reading beyond text levels where they may struggle to recall information gained. It could be suggested that the purpose of reading is lost due to the lack of understanding and meaning from the text.

The hypothesis of this study is that teaching Year Prep students to visualise while engaged in text enhances their listening comprehension. Much research suggests that teaching students to use strategies while reading may increase their ability to monitor meaning and recall important facts and ideas from text. Visualising is one such strategy which helps the student become involved with the text on a deeper rather than superficial level, strengthening his capacity and enthusiasm as an active text participant and ultimately as reader.

In this study, students were taught to use information prior to reading, together with their prior knowledge to create visual images in their minds. These images may change as students become further involved in the text and equip them with the tools necessary to effectively answer questions, recall events and main ideas and show a greater level of text meaning and comprehension. This was conducted using two groups of Prep students; a treatment group who received the intervention, and a control group which allowed for accurate measuring of progress.

The study showed supportive results for the hypothesis. All scores of the post-comprehension tests reflected growth of students in their ability to recall information, which may be attributed to the visualising strategy taught. The research findings also demonstrated the effect that restricted oral language and self-efficacy may have on reading abilities.

The results of the study suggest that students achieve great benefits in learning and using the visualisation strategy to improve comprehension. Thus, embedding such an approach to reading may reduce the gap between superficial and meaningful text engagement.
Introduction

Learning to read is a complex process which involves many procedures which the reader must undertake to ensure reading is valuable. These procedures stretch beyond simply decoding text to understanding how the information behind the content can be interpreted and used. “The only reason to read or listen to language – take in verbal stimuli – is to get meaning, to comprehend...” (Bell (1991, p 13). At an early primary age, students are explicitly taught the means for decoding age-appropriate levels, however, can struggle to recall information, suggesting that the link between reading and understanding is understated. This also applies when listening to texts, where students may focus on pictures and sentence level meaning, but fail to gain a whole picture of the story which inhibits their ability to recall main ideas and show adequate comprehension.

Nelson (2005) comments in her research that reading involves more than decoding text (p 6). Students must “understand what they are reading – they must comprehend” (p 6). It is through the work of Goudvis and Harvey (2000) that she is able to define comprehension:

Comprehension means that readers think not only about what they are reading [or hearing] but what they are learning. When readers construct meaning, they are building their store of knowledge. But along with knowledge must come understanding. (p 6)

Bell (1991) indicates that comprehension “is the ability to connect to and interpret both oral and written language” (p 13). Furthermore she adds that it is the ability to “recall facts, get the main idea, make an inference, draw a conclusion, predict/extend, and evaluate (p 13). Students must have the ability to reason from what is heard and read (Bell (1991), p 13).

Donnelly (2007) uses the research of Pressley (2001), Underwood and Pearson (2004), Nokes and Dole (2004), Kingner and Vaughn (2004) to suggest that “students’ reading improves when students are explicitly taught comprehension strategies” (p i). In Nelson’s (2005) quest to examine how to help children achieve this level of comprehension, she suggests that Goudvis and Harvey (2000) help to answer this question. “They offer many strategies, however the strategy that intrigues me the most is the use of Visualisation” (p 6). Bell (1991) in her text, Visualizing and Verbalizing, uses the research of Olivier (1982) where he concluded that “teachers should try to help children develop the metacognitive skill of visual imagery as a strategy for improving comprehension... [Hence] Visualisation enhances comprehension” (p 17).

In order to understand these investigations in context, we must first define the term Visualisation. Nelson (2005) uses Goudvis and Harvey (2000) to define visualisation as “creating pictures in our minds that belong to us” (p 7). She believes that Miller (2001) supports this definition by defining visualisation as “forming a mental image in one’s mind” (p 7). Bell (1991) employs Bower’s (1990) definition as readers and listeners making models of what is described (p 14). For the purpose of this study, visualisation involves all that has been described. It requires students to make mental images/models of what they are hearing, where by changes take place as new information is processed. Effectively, students construct an internal ‘film’ of the text, whereby, they may use it to show greater comprehension. This is a multifaceted practice as students need to filter and organise information appropriately.
Throughout history, “many great thinkers” have commented on the importance of imagery in their work, including Albert Einstein (Bower (1990), in, (Bell (1991) p 14). It is believed that “imaging is a sensory link to language and thought” (Bell (1991), p 14). Mental pictures play an important role in learning through multiple representations (Schnitz & Kürschner (2007), p 176). This suggests the everyday wisdom that a picture may indeed be worth 1000 words.

From data collected, Nelson (2005) found three major changes in the abilities of the participants (p 24). She noted that students improved in answering comprehension questions (p 24), personal opinion comprehension questions (p 26) and showed a positive increase in reading attitudes (p 27). Nelson felt that teaching students to visualise impacted enormously on their comprehension abilities. She concluded that “the visualisation strategy improved comprehension scores” and provided “a tool and purpose for reading” (p 28). However, some students felt they did not improve because their ability to draw (as required in the intervention) was limited (p 26). It is from these findings that the current study being presented focuses on explicitly asking students to not only draw, but discuss, describe and feel text through visualisation.

The present investigation aims to examine the effect of the visualisation strategy on the ability to recall information and ultimately improve comprehension. There is a focus on the changes which take place during the comprehending phase, where students’ internal image must also evolve. The study attempts to discover the effect that may result from improving comprehending strategies. Students who have an understanding of this process may very well find that comprehension continues to increase, as does their ability to decode text at age appropriate levels. This may prove imperative if the early years of primary school lay the foundations for life-long reading. The hypothesis of this study is that teaching Year Prep students to visualise while engaged in text enhances their listening comprehension.

Method

DESIGN
The study uses a case study OXO design, in which gains in listening comprehension, following explicit teaching and practice of the visualisation strategy, are monitored for lower primary students who have a range of comprehension ability. Two groups are compared in the study, a control group (without intervention) and a treatment group (with intervention).

PARTICIPANTS
A random selection of Year Prep students were chosen with varying needs and abilities. All participants attend the same school, which is large in size and has straight Year Levels. Their age, language background, entry recall ability scores and self-efficacy scores are shown in Table 1.
Table 1: Participant Characteristics

<table>
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<tr>
<th>Case</th>
<th>Student</th>
<th>Group</th>
<th>Age (months)</th>
<th>ESL Yes/No</th>
<th>Recall Ability Score (max. 19)</th>
<th>Self-Efficacy Score (max. 12)</th>
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MATERIALS

The following materials were used for the study:

Visual/Listening Comprehension Pre-test (Appendix A):
* Self-efficacy assessment- Four questions about how participants feel about school, reading, counting and friends. Participants are asked to identify the applicable face from three choices (happy, unconcerned and sad).
* Visual comprehension- Participants are shown a picture from which they have to remember as much detail as possible. Participants are asked to describe the picture describing, objects, colours, surrounds and possible circumstance/s in picture.
* Word comprehension- Participants are asked to think of an item and given prompting questions to examine if their visual image changes.
* Concept Understand- Participants are asked to draw two objects, showing if any discrepancies exist.
* Sentence Comprehension- Participants are asked to draw four descriptions, increasing in complexity. This tests their ability to remember oral detail.
* Narrative Comprehension- Participants are read a story and asked to spontaneously retell. Once finished participants are involved in a cued retelling.

Visual/Listening Comprehension Post-test (Appendix B):
* Self-efficacy assessment- Four questions about how participants feel about school, reading, counting and friends. Participants are asked to identify the applicable face from three choices (happy, unconcerned and sad).
Visual comprehension- Participants are shown a picture from which they have to remember as much detail as possible. Participants are asked to describe the picture describing, objects, colours, surrounds and possible circumstance/s in picture.

Word comprehension- Participants are asked to think of an item and given prompting questions to examine if their visual image changes.

Sentence Comprehension- Participants are asked to draw four descriptions, increasing in complexity. This tests their ability to remember oral detail.

Narrative Comprehension- Participants are read a story and asked to spontaneously retell. Once finished participants are involved in a cued retelling.

Two picture cards (Appendix D)

Three descriptive picture cue cards (Appendix E)

Two fiction picture story books (Appendix C)

PROCEDURE
Each participant was tested prior to the teaching sequence using the Visual/Listening Comprehension pre-test. This was conducted in an office with each individual participant. The pre-test went for duration of approximately thirty minutes. Following this assessment participants in the treatment group were involved in nine teaching sessions (Appendix C).

The nine lessons were conducted over an intensive two week period. The treatment group was involved in the sessions during the Literacy block (as a teacher focus group) in their normal classroom environment. This helped to ensure students were familiar with the learning environment and limiting some confounding variables. During this time, remaining students in the class completed small group activities.

Initially, participants were introduced to the term ‘visualisation’ and given examples by cartoon illustrations (Appendix C). Participants practiced visualising using picture cards (Appendix D).

Sessions two to four focused on visualising using simple oral descriptions from picture cue cards. Participants discussed changes that took place as new information was given.

Sessions five to seven involved participants illustrating what they imagined when read. Over the course of these three sessions the details given were increasing in complexity.

The final two sessions involved participants listening to two short picture stories. Prior to reading each text, participants illustrated what they imagined the story would be about from the title. They were also required to illustrate during reading and after reading, showing what they visualised internally. At the conclusion of each session, participants recalled information from the text as a group.

Post-Testing was conducted in the same manner as the pre-testing phase, with all participants tested individually for duration of approximately thirty minutes. All data collected was tabled to show the effectiveness of the teaching sessions after post-testing was conducted (Appendix F).

Results

OBservations of the group

Results from the case study signify support for the hypothesis that teaching Year Prep students to visualise while engaged in text enhances their listening comprehension. Scores for participants in the
treatment group rose in all areas of comprehension, indicating an improvement in their abilities to comprehend from oral reading (Appendix F). The average comprehension scores of students in the treatment group grew, however, the control group made smaller progress, digressing in the area of sentence comprehension (Figure 1, 2). This information is comparable as scores in pre-testing for the treatment group were reflective of scores obtained in the control group.

![Average Comprehension Scores](image)

**Figure 1:** Average Pre and Post Comprehension scores for all groups

![Treatment Group Listening Comprehension](image)

**Figure 2:** Treatment group Listening Comprehension Progress

On review of the post-testing, the treatment group made the greatest gain in the area of visual comprehension. There was an increase of 76% on the pre-test score. Participants in the control group made the greatest gain in the same area, with an increase of 69% on the pre-test score. However, their abilities to comprehend at the sentence level digressed by 7% where the treatment group score increased by 43%.

Assessment of the participants’ self-efficacy also showed interesting results. Students in the treatment group showed an increase in self-efficacy by 11%, however the control group had a lower average in the post-testing scores when compared to the pre-testing scores (Figure 3).
In particular, the way participants felt about reading increased for half of the treatment group, with all participants receiving the maximum score for self-efficacy (Appendix F). Yet, two participants in the control group received lower self-efficacy scores in the post-testing (Appendix F).

LEARNING TRENDS FOR EACH STUDENT

Student A (Figure 4)

Student A is a very inquisitive and positive member of the class group. He is always ready to give a response and contribute ideas to new task discussions. Student A showed the greatest growth in visual comprehension across all participants in the treatment group). There was an increase of 160% in his post-testing results. Student A was very confident during the post-testing phase and identified a great amount of detail from the visual, sentence and narrative tasks. He was able to use the text to convey comprehension.

Student B (Figure 5)

From her pre-testing and post-testing results, Student B demonstrated significant improvement in visual comprehension. Over the study period, Student B increased this area by 38%. Her ability to
comprehend at the sentence level increased by 36%, while her listening comprehension when read a narrative increased by 36%. She was able to change her mental image (Figure 5, Word Comprehension) with ease at the conclusion of the study, receiving maximum points. Student B is also a confident student and openly enjoys reading. She does not struggle to listen or pay attention. Her results reflect this, showing a steady incline of progress.

![Student B](image)

**Figure 5: Pre and Post scores for Student B**

**Student C** (Figure 6)
This participant was eagerly involved in all teaching sessions. He commented regularly on advances he made and would often remind others in the group to visualise. He scored 113% higher on his post-test results for visual comprehension and even commented on his ability during this phase. All characters in the picture were identified, together with their colour, patterns and circumstance. Sentence comprehension improved by 25% and narrative comprehension improved by 36%. When asked questions in word comprehension to examine if he can change his mental image, Student C received maximum points in the post-test. This showed an increase in his visualising ability, together with his narrative retell scores.

![Student C](image)

**Figure 6: Pre and Post scores for Student C**
**Student D (Figure 7)**

Student D can be reserved and let others in the group take over discussions and tasks. Over the course of the nine teaching sessions, he was encouraged to participate continually. The results showed that he improved by increasing his final sentence comprehension score by an enormous 200%. He was pleased to discover he made such an improvement and commented on the fact he was “really trying to make pictures in his head”. Student D made gains in all other areas by 25% in visual comprehension and 38% in his narrative retell. He was also given the maximum score for changing his mental image during the word visualisation task.

![Student D](image)

**Figure 7: Pre and Post scores for Student D**

**Student E (Figure 8)**

Student E was a quiet member of the group for the first three sessions. She often will not add to discuss if she is unsure of the ‘correct’ answer. As with Student D, she needed much encouragement to participate. However, as the study progressed, she became increasingly involved. She made great gains as shown in her post-test results (Appendix F). There was a 140% increase in her visual comprehension, a 46% increase in her sentence comprehension and 86% in her narrative recall. Student E was confident giving a response in the retell phase of the post-testing. She was most pleased to hear that she had made the most improvement in the group. Her confidence in reading was reflected in her post self-efficacy assessment, receiving the maximum score for this section.

![Student E](image)

**Figure 8: Pre and Post scores for Student E**
**Student F (Figure 9)**

Student F is a happy student who is always eager to 'have-a-go'. He displays average behaviours for Prep. He can be easily distracted, but will contribute to discussions freely. His visual comprehension improved by 71% and his sentence level comprehension improved by 43%. Student F made the least improvement in his ability to recall over the treatment group. His score increased by 9% which is only slightly better than his pre-test score. Despite this, Student F was able to change his mental image during the word comprehension task and received maximum points.

![Student F](image)

**Figure 9: Pre and Post scores for Student F**

**Student G (Figure 10)**

This participant was most challenged by the visualising strategy. She often found it difficult to concentrate on the task at hand. English is also Student G’s second language (ESL). In addition to this, she is part of the Recent Arrivals program, were she joins other Recent Arrivals to develop Concepts of the English language. She may have had difficulties orally expressing what she did/saw while visualising, or perhaps, understanding instructions as well as other participates. Despite this, Student G made many improvements. She scored 30% higher in her visual comprehension score and 20% higher in her sentence comprehension score, when comparing her pre and post tests. Yet, she made a 75% gain in her ability to retell a narrative, which is among the highest for the treatment group. Student G participated in tasks adequately and contributed to most discussions.

![Student G](image)

**Figure 10: Pre and Post scores for Student G**
Control Group

Collectively, students in the control group made fewer improvements than their counterparts. Their scores in the post-testing phase were scattered, as some made gains and others showed declining results (Figure 11). Student J made the most decrease over all participants in the case study with a 27% decline in her ability to comprehend single sentences. Students I, K and N also showed similar results in this area (Appendix F). In the area of narrative retelling ability, Student H’s score decreased by 13%, Student L by 17%, Student M by 10% and Student N by 22%. These results could be attributed to the fact that the control group was presented with the post-test without learning how to visualise or respond in a manner similar to the treatment group. The post-test could have proved labourious for participate, as they had already completed a similar task (pre-test) prior. Despite this, Student M experienced the greatest gain across both groups, by improving 400% in visual comprehension compared to her pre-test results.

![Control Group Average Test Scores](image)

Figure 11: Average Pre and Post scores for Control Group

Discussion

Reflecting on the results of this study one could suggest that teaching Prep students the visualisation strategy does improve their listening comprehension. Participants improved in their abilities to remember detail in visual media by internalising the image to enhance recall. They made considerable gains in sentence comprehension and were about to change their visual with the introduction of new information. This led to an increased ability to comprehend fiction texts by constructing images through the use of effective visualisation. Students displayed increasing confidence in using the visualisation strategy throughout the teaching unit and this was reflected in their Self-Efficacy assessment (Figure 3) where students displayed positive attitudes toward reading.

This study supports the research of Nelson (2005) who noted that students had a “better understanding of the author’s purpose and the meaning … of the story” (p 28). This is reflected in all scores of the treatment group, who were able to precisely indicate main ideas and events in the story. Nelson (2005) also noted that the answers she received “became more in-depth and thoughtful” which was experienced during the post-testing phase of the current study (p 24).
The increase in the participants’ self-efficacy demonstrated a new self belief that they can indeed achieve in the area of reading. This supports Nelson (2005), who found that students took a responsibility for their learning, increasing positive mind-sets, which was “refreshing to experience” (p 28).

The findings of this study are related to the research of Schnitz and Kürschner (2007). They suggested that the visualisation strategy positively influenced the ability of the learner’s performance (p 187). During their study, they examined the model by which one might internally visualise, which moves far beyond the current study, but nonetheless, supports data.

There may be many influences on the positive data collected. As Zeigler, et al (2008) describes, “to become skillful in visualisation, many students need explicit instruction” which is how the teaching sequence was delivered. Students were exposed to new terms and strategies, of which they were previously unaware took place internally. Their enthusiasm enabled the sequence to develop and ultimately succeed. Dramatic increases which were noted in this study could also be attributed to the classroom environment and lesson structure which was far from alien for the group. The learning took place as learning does day to day in the class. Students were comfortable with the procedure and willing to abide by instructions on the whole.

The lower level achieved by the control group would suggest that participants were not actively involved in such an intensive program. Hence, where the treatment group was excited about using the ‘new’ strategy of visualisation, the control was not as attentive. This may mean that the results obtained are not as accurate as suggested due to the engagement (or lack thereof) of the participants. Nevertheless, the students in the treatment group certainly performed well. The high increase in Student M’s visual comprehension score on the post-test could be credited to various reasons including, mood on the day of pre-testing, activities being missed during testing, prior knowledge of topic, attention span (due to fatigue) or any other outside school issues.

The treatment group offered ideas and responses freely during post-testing and often commented on the fact they were using the visualisation strategy. During testing one was also able to refer to visualisation knowing that the other understood what was meant.

The data provided by the study proposes implications for teaching which range from the teaching of the visualisation strategy to the classroom environment. The following are points to consider as a result of the present study:

* Explicitly teach students to embrace foreign ideas and ‘have-a-go’ at new tasks. Although some participants were initially apprehensive, everyone showed improvements in comprehension across the board. There was no regression among the results of the treatment group nor was there a plateau. Students enjoyed learning the new term ‘visualisation’ and were able to orally express how to make mental images.
* Visualisation is a valuable tool for the comprehension of text. When students understand how to remember and gather meaning, then they will.

“If I can’t picture it, I can’t understand it”. Albert Einstein (in Bell, N. (1991) p 1)
Decoding text may only be part of the reading process. The goal of reading is to gain a message. Similarly, the goal of listening is to gain a message. Therefore, the mode by which the message is presented is only the primary concern. Students must understand and learn from the message which is central to the reading process. Without meaning, author’s write for no audience or purpose, which one could describe as pointless.

Encouraging students to learn not only how to read, but how to interact as reader, enables them to become aware and involved in the reading journey. Students must be a part of the text, not just bystanders.

Future directions for research could include examining the internalisation of the visualisation strategy. How do students internalize what has been learnt or taught? Zeigler, et al (2008) suggests that “providing practice so that visualisation may be transformed into an automatic skill” would observe students using the strategy independently. This would ultimately be the goal of teaching visualisation. Furthermore, future research may include additional information about the self-efficacy of students in regards to reading. How does effective teaching practice enable a positive self belief? What effects does a negative or positive attitude have towards a student’s ability to learn and achieve.
References


Bibliography


Appendices

Appendix A: Visual/Listening Comprehension Pre-test

Appendix B: Visual/Listening Comprehension Post-test

Appendix C: Teaching Unit

Appendix D: Picture Cards

Appendix E: Descriptive Picture Cue Cards

Appendix F: Listening Comprehension/Visualisation Testing Results & Self-Efficacy Assessment
Appendix A

VISUAL/LISTENING COMPREHENSION PRE-TEST
(April 2008)

Student: ________________________  □ Treatment Group  □ Control Group
Recorder: ________________________
Date: ____________________________

1. Self Efficacy Assessment  (Show student face cards)
   Ask student the following questions:
   - How do you feel about school? 😊😊😊
   - How do you feel about reading? 😊😊😊
   - How do you feel about counting? 😊😊😊
   - How do you feel about friends? 😊😊😊
   
   Happy= 3 points
   Unconcerned= 2 points
   Sad= 1 point

2. Visual Comprehension
   a) Show student a picture and ask them to make a picture in their heads, so to remember detail.
      Hold picture for 15 seconds.
   b) Ask student to describe the picture in as much detail as possible. Prompting where necessary.
      Student’s response:

   Comments/Observations:

   1 point per detail recalled (object, colour, circumstance)

3. Word Comprehension
   a) Ask student to ‘make a picture’ of the following words. Ask prompting questions to see how the
      student’s picture changes:

      BOAT
      - What sort of boat is it? A sailboat, ship, yacht?
      - What colour is the boat?
      - Is anyone on the boat?
      - What is happening around the boat?

      1 point per question. Maximum score is 4 per word
b) Ask student to ‘make a picture’ in their head of the following words. Ask student to draw a picture of it. (Student sheet)

   i. APPLE     ii. FLOWER

4. Sentence Comprehension
   a) Ask student to ‘make a picture’ in their head as you read the following sentence. When ready, student illustrates their picture from the abstract to concrete. (Student sheet)

   i. The cat sat on a red mat.
   ii. The little boy was sliding down a blue slide.
   iii. The green car was driving in front of the purple car on a sunny day.
   iv. The old lady with curly hair was walking her big fluffy dog to post a letter.

5. Narrative Comprehension
   Read short story to student. Ask students to remember what they can because some questions will be asked after reading. (Mayer, M. (1987). There’s an Alligator under my Bed. Dial Books for Young Readers, New York.)

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<th>Score</th>
<th>Unprompted</th>
<th>Prompted</th>
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<tr>
<td>Setting – Boy’s bedroom/house</td>
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<td>There used to be an alligator under my bed</td>
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<tr>
<td>Had to be careful when going to bed</td>
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<td></td>
</tr>
<tr>
<td>Used to hid whenever boy looked</td>
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<td></td>
</tr>
<tr>
<td>Called mum and dad, but they never saw it</td>
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<td></td>
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<tr>
<td>Got some alligator bait from fridge in a paper bag</td>
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<td></td>
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<tr>
<td>Put a peanut butter sandwich, fruit and apple pie in garage</td>
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<td>Left biscuits down the hall and vegetables on the stairs</td>
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<td>Put a drink and sweets next to bed and waited</td>
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<td></td>
</tr>
<tr>
<td>Alligator came out to get something to eat</td>
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<td>Boy slammed the door. Locked it and went to bed. There was no mess to clean up</td>
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<td>Boy wonders if dad will have trouble getting car out in morning, so left him a note</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Why was the alligator hiding under the bed?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Where did the alligator go when mum and dad came in?</td>
<td></td>
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</tr>
<tr>
<td>What could happen next in the story?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>19</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.

b) i. 

b) ii.

4.

a) i. 

a) ii.

a) iii. 

a) iv.
Appendix B

VISUAL/LISTENING COMPREHENSION POST-TEST
(April 2008)

1. Self Efficacy Assessment (Show student face cards)
Ask student the following questions:
- How do you feel about school?
- How do you feel about reading?
- How do you feel about counting?
- How do you feel about friends?

Happy= 3 points
Unconcerned= 2 points
Sad= 1 point

2. Visual Comprehension
a) Show student a picture and ask them to make remember details. Hold picture for 15 seconds.
b) Ask student to describe the picture in as much detail as possible. Prompting where necessary.
Student’s response:

Comments/Observations:

1 point per detail recalled (object, colour, circumstance)

3. Word Comprehension
Ask student to ‘make a picture’ of the following words. Ask prompting questions to see how the student’s picture changes:

CAR
- What sort of car is it? A big/small car?
- What colour is the car?
- Is anyone in the car?
- What is happening around the car?

1 point per question
Maximum score is 4
4. Sentence Comprehension
Ask student to 'make a picture' in their head as you read the following sentence. When ready, student illustrates their picture from the abstract to concrete.

v. The bird sat in a yellow cage.
vi. The little girl was swinging on a green swing.
vii. The blue boat was surrounded by sharks in a grey storm.
viii. The young boy was riding a green bike with a bag on his back in front of a big house.

5. Narrative Comprehension
Read short story to student. Ask students to remember what they can because some questions will be asked after reading. (Mayer, M. (1968). There's a Nightmare in my Closet, Dial Books for Young Readers, New York.)

<table>
<thead>
<tr>
<th>Main Ideas</th>
<th>Score</th>
<th>Unprompted</th>
<th>Prompted</th>
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</thead>
<tbody>
<tr>
<td>Main characters in story – Boy, nightmare 1, nightmare 2</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setting – Boy’s bedroom</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used to be a nightmare in closet</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closed the door before going to sleep</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was afraid to look at closet</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When safe, the boy would peek, sometimes</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decided to get rid of nightmare</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When dark, boy heard nightmare and quickly turned light on. The nightmare was sitting at his bed.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boy shot nightmare and nightmare cried</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boy was a little mad</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nightmare would not stop crying, so boy took nightmare and tucked him into bed.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The boy closed to closet door.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There might be another nightmare in closet, but the bed isn't big enough for two!</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What was the nightmare scared of?</td>
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<tr>
<td>Who was more scared? The boy or the nightmare?</td>
<td></td>
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</tr>
<tr>
<td>What could happen next in the story?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Total:</td>
<td>19</td>
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</tr>
</tbody>
</table>

1 point for detail represented:
   i. bird, sat, yellow, cage (4 points)
   ii. little girl, swinging, green, swing (4 points)
   iii. blue, boat, surrounded, sharks, grey, storm (6 points)
   iv. young boy, green, bike, bag, in front of, big house (6 points)
STUDENT SHEET

Student: ___________________________  ☐ Treatment Group  ☐ Control Group
Date  ___________________________

4.

i. 

ii. 

iii. 

iv. 

Appendix C
TEACHING UNIT

Teaching Year Prep students to visualise while engaged in text enhances their listening comprehension.

Session ONE- Introduction to Visualisation
(30-35 minutes)

INTRODUCTION
Teacher asks students about purpose of reading: Why do we read?
Students express opinions and discuss.
Teacher explains the following:
Reading is about learning something from a message. This can come from books, computers, television, magazines and even signs. Everything we read is telling us something and we need to understand what it is telling us. So we can understand, we read the words and sentences, but we also need to think about what they mean. For example, if a street sign says ‘STOP’ and I read the word with thinking about what it means, I might have an accident with another car. Just the same, if I am looking for a street and I read the name ‘Gum Road’ without thinking about what the sign is saying then I might miss the street I need. We think about what we read all the time, and this is important when I am reading and listening.

Teacher introduces the term visualisation:
Does anyone look at pictures when they are reading or listening to a story? If you do, then you are using the pictures to help you understand what the words are saying. They help us to see what we are hearing. The information goes into our heads and we can enjoy the book. If I was to read you a story without pictures, would you be able to tell me what the story was about? If you tried, you could make the pictures in your own head – like pictures in a book or movie. We call this visualisation (students repeat as teacher scribes term on a board).
Look at this cartoon. Which boy do you think will remember the most about the story?

The old lady crossed the road. Her tiny dog was barking and growling at something noisy on the other side. The lady was not worried about it because she was walking fast.

Old lady, road, tiny dog, barking... other side of road... walking...
Students discuss pictures and talk about which one will remember more. Teacher directs students to think about the information gathered in each and what is going to be recalled.

PRACTICE VISUALISING
Teacher invites students to ‘have-a-go’ at visualising. She presents them with the following picture card:

I want you to draw this picture in your heads. Look at all the details in the picture and have a guess at what might be happening.

![Picture Card 1](image)

Once students have finished looking at the picture ask them to describe details from the picture. Ask prompting questions like: What was the baby wearing? What was in the background? What was the child doing? What was missing from the picture? Teacher scribes responses and presents the picture back to the group. Discuss details remembered and forgotten. What are you going to do when we visualise next? Where are you going to look in the picture? What might you do with the information when it gets to your brain?

Show students the following picture card and ask them to draw the pictures in their heads.

Don’t forget to look at all the details in the picture!

![Picture Card 2](image)

When finished looking at the picture, ask students to again describe the details. Ask prompting questions like: What was the girl eating? What was in the background? What do you think the ball might
have been? What was missing from the picture? Teacher scribes responses and presents the picture back to the group. Discuss details remembered and forgotten.

Ask students what helped them to remember the details in the two pictures. Students should respond with ‘making pictures in our heads’. Finally, students repeat the word visualisation and describe its purpose. Teacher asks students to see if they can try this strategy when they read or are read to tonight at home.

**Sessions TWO – FOUR**
(15-20 minutes each)

<table>
<thead>
<tr>
<th>Session TWO</th>
<th>Session THREE</th>
<th>Session FOUR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Picture recall</strong></td>
<td>Students recall what they remember from the picture in the previous lesson. What does the picture look like in their head now?</td>
<td>Students recall what they remember from the picture in the previous lesson. What does the picture look like in their head now?</td>
</tr>
<tr>
<td><strong>Introduction of task</strong></td>
<td>Students break into groups of 2 and 3. Student A is given a picture to describe to the other student/s (B, C). These students must make a picture in their heads (see Diagram 3 below)</td>
<td>Students are reminded of the reflections from the previous lesson and asked to see if they can improve the task. Students break into groups of 2 and 3. Student B is given a picture to describe to the other student/s (A, C). These students must make a picture in their heads (see Diagram 4 below)</td>
</tr>
<tr>
<td><strong>Task</strong></td>
<td>Once student A has finished describing the picture to their partner/s the picture cue card is revealed and students talk about what they saw in their heads. At this time students (B, C) may be given opportunity to draw their own illustrations on paper to help them to discuss.</td>
<td>Once student B has finished describing the picture to their partner/s the picture cue card is revealed and students talk about what they saw in their heads. At this time students (A, C) may be given opportunity to draw their own illustrations on paper to help them to discuss.</td>
</tr>
<tr>
<td><strong>Discussion</strong></td>
<td>Students are brought back together as a whole group and discuss what happened in their small group. Teacher monitors discussion and asks about what they experienced.</td>
<td>Students are brought back together as a whole group and discuss what happened in their small group. Teacher monitors discussion and asks about what they experienced.</td>
</tr>
<tr>
<td><strong>Reflection</strong></td>
<td>Students comment on what they did well, and what they need to do next time they do the task. What have I learned from the activity?</td>
<td>Students comment on what they did well, and what they need to do next time they do the task. What have I learned from the activity?</td>
</tr>
</tbody>
</table>
### Sessions FIVE – SEVEN
(15 – 20 minutes each)

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<tr>
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<th>Session FIVE</th>
<th>Session SIX</th>
<th>Session SEVEN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction of task</strong></td>
<td>Students are advised of the new task. They are required to visualise an image in their heads using the oral cues given by the teacher. Students then need to draw the picture they saw in their heads onto a blank piece of paper.</td>
<td>Students are advised of the new task. They are required to visualise an image in their heads using the oral cues given by the teacher. Students then need to draw the picture they saw in their heads onto a blank piece of paper.</td>
<td>Students are advised of the new task. They are required to visualise an image in their heads using the oral cues given by the teacher. Students then need to draw the picture they saw in their heads onto a blank piece of paper.</td>
</tr>
<tr>
<td><strong>Visualisation Task</strong></td>
<td>Teacher reads out the following sentence, while the students make the appropriate mental image. The elephant was happy to see his friend the purple spotted giraffe. Teacher repeats the sentence, so that students can check their visualisations. Students are ten given time to illustrate their visualisations independently of others.</td>
<td>Teacher reads out the following sentence, while the students make the appropriate mental image. A brightly coloured hot-air balloon rose into the sky filled with a group of happy children. Teacher repeats the sentence, so that students can check their visualisations. Students are ten given time to illustrate their visualisations independently of others.</td>
<td>Teacher reads out the following sentence, while the students make the appropriate mental image. A man was riding his one-wheeled bicycle in the park when he spotted a rear green slim covered creature. He was excited to see a sight! Teacher repeats the sentence, so that students can check their visualisations. Students are ten given time to illustrate their visualisations independently of others.</td>
</tr>
<tr>
<td><strong>Discussion</strong></td>
<td>Students discuss the pictures they saw in their heads, including the colours, objects and added details. Discuss what they did to make the picture, remember the picture and draw the picture. How can I retell what the sentence was about?</td>
<td>Students discuss the pictures they saw in their heads, including the colours, objects and added details. Discuss what they did to make the picture, remember the picture and draw the picture. How can I retell what the sentence was about?</td>
<td>Students discuss the pictures they saw in their heads, including the colours, objects and added details. Discuss what they did to make the picture, remember the picture and draw the picture. How can I retell what the sentence was about?</td>
</tr>
<tr>
<td><strong>Reflections</strong></td>
<td>Students discuss what they did well and what they need to do to improve their mental and concrete visuals. What am I going to try to do next time? What did I learn from this activity?</td>
<td>Students discuss what they did well and what they need to do to improve their mental and concrete visuals. What am I going to try to do next time? What did I learn from this activity?</td>
<td>Students discuss what they did well and what they need to do to improve their mental and concrete visuals. What am I going to try to do next time? What did I learn from this activity? What am I going to tell others about visualisation?</td>
</tr>
</tbody>
</table>
## Sessions EIGHT & NINE

(20-30 minutes)

<table>
<thead>
<tr>
<th></th>
<th>Session EIGHT</th>
<th>Session NINE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction of Task</strong></td>
<td>The task is explained to the students. They are prompted to remember to visualise the story which will help them retell the narrative after reading.</td>
<td>The task is explained to the students. They are prompted to remember to visualise the story which will help them retell the narrative after reading.</td>
</tr>
<tr>
<td><strong>Pre-reading Predictions</strong></td>
<td>Students predict what the story may be about. Who might the characters be? Where might the setting take place? What is going to happen in the book?</td>
<td>Students predict what the story may be about. Who might the characters be? Where might the setting take place? What is going to happen in the book?</td>
</tr>
<tr>
<td><strong>Beginning reading phase</strong></td>
<td>Teacher begins to read the text to the students. Students are to visualise what they are hearing, to make to book into a movie in their heads.</td>
<td>Teacher begins to read the text to the students. Students are to visualise what they are hearing, to make to book into a movie in their heads.</td>
</tr>
<tr>
<td><strong>Mid reading phase</strong></td>
<td>Teachers pauses reading at the end of page 17. Ask students to predict what they think is going to happen next in the story.</td>
<td>Teachers pauses reading at the end of page 11. Ask students to predict what they think is going to happen next in the story.</td>
</tr>
<tr>
<td><strong>Finish reading phase</strong></td>
<td>Teacher finishes reading the text to students. Students continue to visualise what they are hearing, continually changing their mental imagery.</td>
<td>Teacher finishes reading the text to students. Students continue to visualise what they are hearing, continually changing their mental imagery.</td>
</tr>
<tr>
<td><strong>Post-reading predictions</strong></td>
<td>Students discuss what they think might happen in a sequel to the text. Who would the characters be? What would happen? What would the ending be?</td>
<td>Students discuss what they think might happen in a sequel to the text. Who would the characters be? What would happen? What would the ending be?</td>
</tr>
<tr>
<td><strong>Retell of story</strong></td>
<td>Students are asked to retell what the text was about. In a whole group situation, students add their ideas together to create a whole picture of the text.</td>
<td>Students are asked to retell what the text was about. In a whole group situation, students add their ideas together to create a whole picture of the text.</td>
</tr>
<tr>
<td><strong>Discussion</strong></td>
<td>Students discuss what they did to remember the text. What did you do to remember what you heard? Did visualising help remember details from the story?</td>
<td>Students discuss what they did to remember the text. What did you do to remember what you heard? Did visualising help remember details from the story?</td>
</tr>
<tr>
<td><strong>Reflections</strong></td>
<td>Students discuss what they feel they did well and areas for improvement. What did I do really well? What do I need to try to do next time? What have I learnt from this activity?</td>
<td>Students discuss what they feel they did well and areas for improvement. What did I do really well? What do I need to try to do next time? What have I learnt from this activity?</td>
</tr>
</tbody>
</table>
Appendix D

PICTURE CARDS

Diagram 1:

Diagram 2:

All illustrations taken from:
Appendix E
DESCRIPTIVE PICTURE CUE CARDS

Diagram 3:
# Appendix F

## LISTENING COMPREHENSION/VISUALISATION TESTING RESULTS

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<th>3a</th>
<th>3b</th>
<th>4a</th>
<th>4b</th>
<th>4c</th>
<th>4d</th>
<th>5</th>
<th>Sentence Comprehension Total</th>
<th>Spontaneous Narrative Recall</th>
<th>Cued Narrative Recall</th>
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<td>Student C</td>
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<td>2</td>
<td>4</td>
<td>3</td>
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<td>16</td>
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<td>Student D</td>
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<td>0</td>
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## SELF-EFFICACY ASSESSMENT

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<td><strong>TOTAL:</strong></td>
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- 35 -