

Hypothesis:

Focused instruction on how students can visualize events in a text and record these, using a graphic organizer, specifically an information map, will lead to an identifiable increase in comprehension at the whole text level.

Abstract:

A problem many students have appears to be a difficulty in retaining information. When reading, they are able to recall a small number of key ideas, however, they seem to have difficulty in making links with what has been read earlier in a text. Research in explicit strategy training has shown improvement in comprehension. The present study examines explicit training in one visualisation technique in conjunction with the use of information maps to assist with working memory capacity.

The teaching targeted explicit training in awareness of how the brain records incoming data and the individual's ability to recall that data when necessary. The present study demonstrates how three, Year 3 students who have had a history of reading difficulties, have been assisted with reading comprehension. All students improved in their spontaneous retelling of text, which examined their literal comprehension ability. However there is not sufficient data to determine the higher order comprehension skills. Therefore implications of teaching suggest a focus on explicit teaching related to inferential skills and vocabulary development prior to reading a text.

Introduction:

The broad topic/problem that is being targeted

Many students attain a reasonable level of decoding skills by the middle primary school Years. (Years 3 & 4) However for many their reading comprehension level is significantly lower than their reading age.

Related research that has been done

There is a vast body of research related to reading acquisition, reading difficulties and strategies or programs, which best facilitate the reading process. This paper addresses only a small sample in this research.

Over the past twenty years, research in comprehension has demonstrated a shift in beliefs related to reading comprehension problems. Whereas previously research focused mainly on difficulties with decoding text, current research views such problems as arising from difficulties across a wide range of language and thinking activities. (Williams, 2000) "All aspects of language aid the reader in comprehending texts. These include many types of information: orthographic, phonological, lexical syntactic, semantic and contextual. All units of information are connected to every other unit either directly or indirectly. (Nancy et al, 2001) Therefore, for the capable reader, there is a constant interplay of the above elements as well as reading fluency and self-efficacy, which lead to high levels of reading comprehension.

Another body of research examines working memory difficulties and the impact this has on an individual's understanding of text. Baddley and his colleagues introduced the powerful concept that the appropriate way to characterize short-term memory, is as a "working memory" system. "Working memory is defined as a short duration, limited capacity memory system capable of simultaneously storing and manipulating information, in the service of accomplishing a task." (Baddley, cited in Caplan, David and Waters, Gloria 1998.) Working memory has a direct correlation to many of the skills already mentioned in that a student with reading difficulties may direct his/her attention to a specific area, such as phonological or orthographic processes, which result in less working memory space being available for higher order skills such as comprehension. (Loden et al, 2000) Comprehension relies on the ability to make links between information as a text is read. Where there is a breakdown in memory retention, this task becomes very difficult.

Students experiencing difficulties in comprehension may require intervention at one or more of the areas mentioned. In addition to the research, which seeks to explain why problems occur, there is also a great deal of information related to how these problems might be addressed. There are many interventions supported by research, which demonstrate gains in comprehension ability. (See Loden et al (2000) for a description of these.)

In a report by the National Reading Panel (US Education Department, 2000) it is claimed that text comprehension is best facilitated by teaching students a variety of techniques and strategies to assist in recall of information, formulation of questions and the ability to summarise information. Literature describes explicit teaching, teacher modeling and scaffolding students learning as being highly effective in assisting students with reading difficulties. Classroom observations, however, demonstrate that although there is evidence of explicit teaching of phonological and orthographical processing skills, there appears to be a lack of direct teaching time directed specifically to comprehension strategies. (De Corte, Leicester 2001)

In terms of reading comprehension at the whole text level, research suggests that the successful implementation of the following learning strategies may result in positive overall gains for the struggling reader: cognitive mapping, critical thinking maps, semantic feature analysis, story mapping and visual imagery. (Staal, Newark, 2000) Each of these strategies uses some form of visualization to help the reader remember. Two strategies are described below. The first is Visualisation. Bell N, 1991, provides a detailed analysis of visual imagery from an historical perspective to modern day thinking. Briefly, visualization is the process of formulating pictures / visual images in the mind. In the reading process, this involves changing words into pictures. Bell describes imaging as a sensory link between language and thought. It is a powerful technique as it provides readers with a visual representation of text. "It links a reader to and from prior knowledge, establishes vocabulary and stores information in both long term and short term memory. (Bell, 1991)

The second strategy is the use of graphic organizers, such as Information maps, in which readers are required to convert visual representations of information to text. These maps have many valuable uses. They enable the reader to identify main points and summarise information read, demonstrate links between information and provide the reader with a scaffold, which can be used for retelling information. (Crimi et al, 2000) Findings from research suggest that using visual maps adds to teaching effectiveness and that the use of these instructional tools facilitates greater comprehension. However it also important to note that the greatest impact on students' learning occurs once they are confident of using the strategy independently. (Gustello, Beasley, Sinatra, 2000)

Link related research in literature with the problem that is being researched. What might be the cause of the problems being investigated?

The present investigation acknowledges that comprehension is best taught employing a range of teaching strategies. However it is not possible to address them all within the scope of this research. This research limits itself specifically to extending prior research in comprehension by firstly, examining the influence of using graphic organizers, that is, Information Maps relating to narrative texts and secondly, determining the impact of teaching students a visualization technique. Both these strategies are selected, to assist with working memory retention. The investigation is based on the notion that a group of students' observed as having difficulty with comprehension would benefit from strategies, which would help them with automatic recall of main ideas, and the ability to summarise and make links with what has previously been read. Teaching these students the visualization techniques of making a video recording of text read and using information maps at specific intervals throughout their reading, should assist them in making connections with what has been read previously in a text. Information maps should help students to record main ideas and provide a framework for their thinking. This technique works at the paragraph or whole text level. It encourages students to make links throughout their reading and to clarify understandings.

Prediction

Focused instruction on how students can visualize events in a text and record these, using a graphic organizer, specifically an information map, will lead to an identifiable increase in comprehension at the whole text level.

Method

This study uses an OXO design in which the gain in using a visualization technique in conjunction with a graphic organizer is monitored for a small group of Year 3 students who have reading comprehension difficulties.

Participants:

Table 1: describes the students targeted in this research.

<i>Students' Name</i>	<i>Age</i>	<i>Male or Female</i>	<i>Background information related to students.</i>
F.G	9 years	M	Was recommended for the Reading Recovery Program in 2000, however due to limited funding, was not able to access this support. The Literacy Co-coordinator has provided some individual assistance for him.
M.G	8 years, 6 months	M	Was on the Reading Recovery Program in 2000 for a period of 24 weeks and exited the program at level 15 on a seen text. On an unseen text he was operating at Level 12. The Reading Recovery teacher noted that he had difficulty retaining new information and that gains in reading were achieved quite slowly.
C.M	9 Years, 1 month	F	Repeated Year 2. Was an elective mute throughout Prep and during first Term in Year 1. She was referred for to the Catholic Education Office, Special Education Department for assessment in 1998 and as a result, it was recommended the she receive assistance using the "Phonological Awareness Program." There is no record of her involvement in this intervention. She is still reluctant to speak in a large group and her vocabulary is quite limited.

These students were selected on the basis that they had been identified as "at risk" during their junior school years and were still demonstrating difficulties with text comprehension. They recall minimal information on retelling of text and seem to work on a superficial level when discussing a text. Each individual has been involved in the ClaSS program, (Children's literacy success strategy which is a Catholic Education Office initiative) for the past two years. Within the reading hour, these children have been involved in daily focus teaching groups with their teachers. Selection of the target group was undertaken in consultation with both current and previous classroom teachers.

Materials

The materials used include the following:

- PM Benchmark Kit. This was used to determine the students' instructional text level and the corresponding reading age.
- PROBE (Prose Reading Observation and Evaluation Of Comprehension) Testing Kit. This was used for Pre- Testing and Post Testing purposes. Passages for students to read were selected on the basis of reading age. . In addition to the Guided Comprehension questions supplied in the manual, which measured comprehension at the literal, inferential, vocabulary, evaluation, re-organisation and reaction levels, the students were also asked for a spontaneous retelling of the story and this was analysed according to comprehension at the literal level only. At the Post – Testing stage,

students were asked to pause at intervals, record information on their maps and use the information map in their retelling.

- Spontaneous Retelling Analysis: Refer to (Munro J, Session 3 Notes
- Fry's Readability Graph. This was used to determine the level of difficulty for each text used in the teaching sessions.
- Short Narrative texts. The Narrative Genre was selected because of the students' familiarity with text structure. The decision to use minimal pictorial support was reached because of the visualization technique being taught in this intervention. (See appendix for examples)
- Information Maps. This was designed as a flow chart to assist students in sequencing their ideas. (See appendix for examples)
- Visualisation Cue Card. This was designed as a visual reminder of what visualization means. (See appendix)

Procedure:

(Detailed lesson plans; copies of texts, pre and post testing data have all been included in the appendix of this paper.)

The intervention was administered by the Literacy Co-coordinator, who has had ongoing contact with these students over the past two years.

The tasks were administered to all students in the following order:

- On an individual basis, each child's instruction text level was determined.
- On an individual basis, each child was administered the PROBE test and results were analysed.
- The intensive intervention program was administered to the students in a group learning situation. This was decided partly on the basis of time constraints, and partly because it provided scope for reciprocal learning.
- The six teaching sessions were conducted at the same time each morning, over a two-week period. Each session lasted between 40 –50minutes.
- The focus of sessions 1 & 2, was the explicit teaching of the visualization technique and the information map. The reading strategy used was "Reading To" students.
- The focus of sessions 3 & 4, was the application of these techniques with teacher and peer support. The reading strategy used was "Shared Reading" with students.
- The focus of sessions 5 & 6 was the independent use of strategies by the students. The reading Strategy used was "Guided Reading." The students were given assistance only when required.
- At the end of each session students was required to use their information map to retell the text.

This process aimed at allowing the students to move from completing a task with a great deal of support to some degree of independence.

- Each session was taped to assist with analysis of data.
- Students' information maps were collected.
- Observations of students and anecdotal notes were taken each session.
- In terms of analysis, spontaneous retelling data collected in Sessions 5&6, in which students were required to complete their information maps independently and then use them to retell the story, were analysed for the number of literal key ideas included in the retelling.
- At the end of the teaching unit, students were tested on an individual basis. At the beginning of this session they were asked to verbalise what they had learned during the sessions we had worked together. (*Their responses are noted in the appendix of this paper.*)
- The PROBE test was administered again, to assess if any gains were made by students, as a result of the brief intervention program. The students were expected to read a narrative text, which differed from the one used at the pre-testing stage, but was also selected according to students' reading ages. The students were asked to read, pause at intervals and record key ideas on an information map. After the

reading was completed, they were asked to retell the story in their own words, prior to answering the set of questions provided. The retelling was in the presence of the information map.

Results

The comprehension of the students was calculated using the PROBE Assessment and spontaneous retelling scores. The students' performance is described in two sections.

- i. Spontaneous retelling
- ii. Guided comprehension.

(A description of the students' performance is described in detail in the appendix of this paper.)

The students' instructional text levels and equivalent reading ages are shown in Table 2.

Table 2

Name	Instructional text level	Equivalent Reading Age
F.G	20	8years
M.G	22	8.5years
C.M	27	10-10.5 years

The average scores for each of the spontaneous and guided comprehension are shown in Tables 3 and 4 below:

Table 3. Spontaneous Comprehension Scores.

The spontaneous scoring was based on the number of literal ideas contained in the text and the percentage of ideas contained in the retelling.

Name	Pre Test Scores	Session 5 Scores	Session 6 Scores	Post Test Scores	Mean Score
F. G	37.5%	84%	87%	72.7%	70.3%
M.G	12.5%	79%	87.5%	72.7%	62.9%
C.M	37.5%	47.3%	68.8%	57%	52.6%
Mean Score	29. %	70%	81%	67%	

Table 4. Guided Comprehension Scores.

These scores were based on the PROBE Assessment schedule.

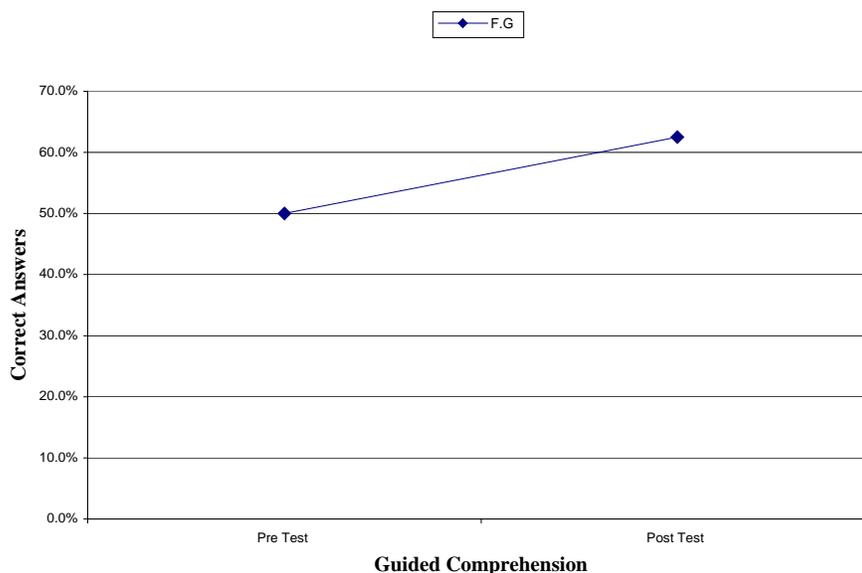
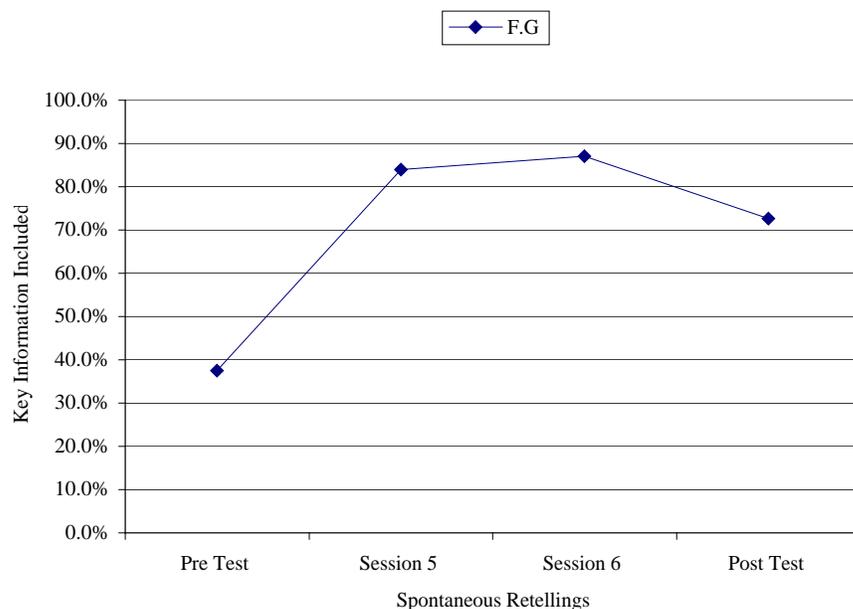
Name	Pre Test Guided Comprehension	Post Test Guided Comprehension	Mean Score
F.G	50%	62.5%	56.25%
M.G	62.5%	62.5%	62.5%
C.M	60%	40%	50%
Mean Score	57.5%	55%	

Trends for the group indicated that all students displayed some gain in their spontaneous retelling of text. On average the highest retelling scores were attained in Sessions 5 & 6. Differences between learning progress are evident, in that the greatest gains were made by M.G and F.G, whilst smaller gains were made by CM. The group trends vary in outcomes

shown in the guided comprehension section. This demonstrated explicit teaching of the visualization and information map strategies, on average, had the greatest impact at the literal comprehension level.

Individual Student Results

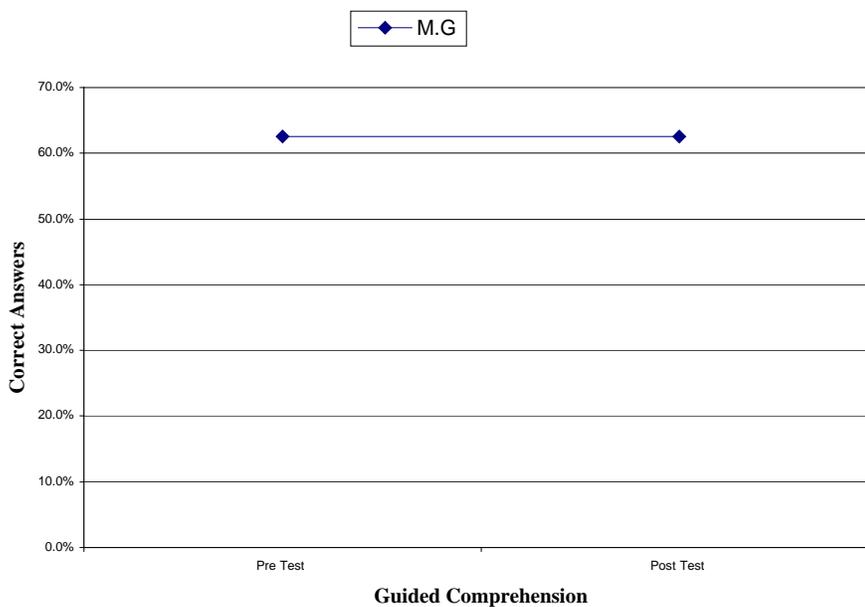
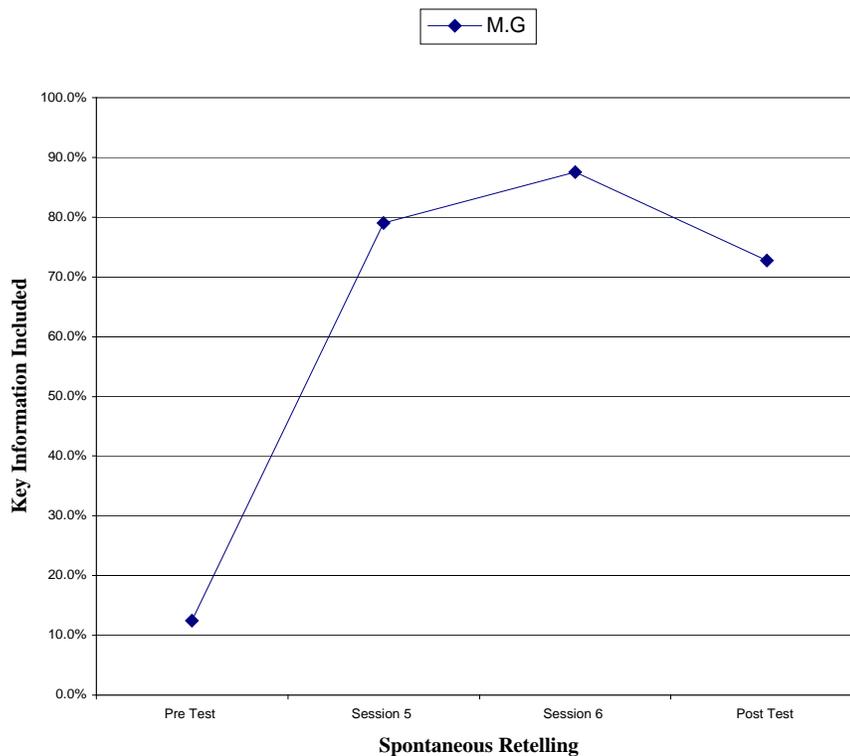
The following graphs show the gains made by F.G.



These graphs demonstrate that F.G. made considerable gains in both his spontaneous retelling and guided retelling. The former increased by 35.2% and the latter by 12.5%. This suggests that the use of the two strategies taught, have had a significant positive outcome for him. F.G. moved through each session with confidence. He seemed to grasp new learning with ease, was eager discuss his work and was able to complete tasks independently quite early in the teaching unit. His use of the visualization technique became automatic after the second session. He was observed using an invisible button at the side of his head to activate the 'play and rewind' modes. When using the information maps, he demonstrated an ability to quickly identify main ideas and record these in point form. In his retellings, at the end of each session,

F.G demonstrated an ability to refer to the information map for assistance when needed. The written ideas also seemed to trigger his memory and as a result he added more information. He made some attempts at inferring information.

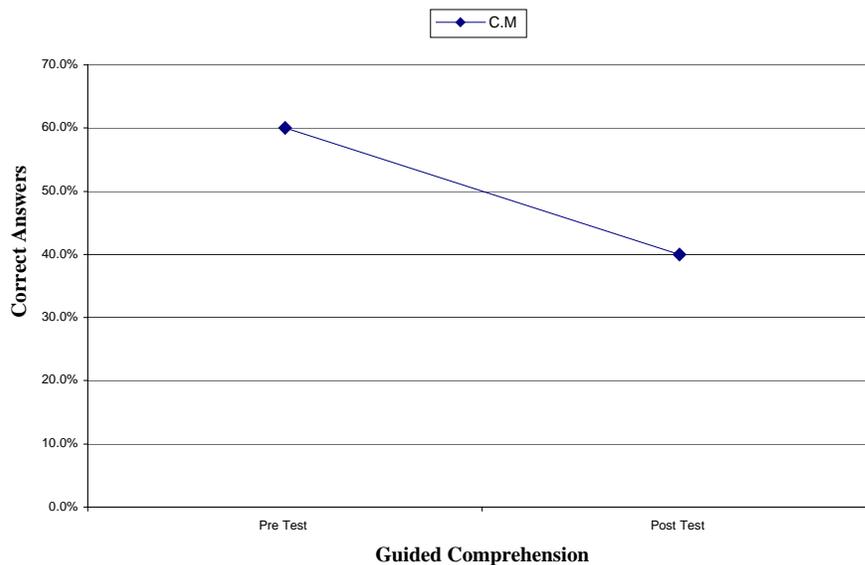
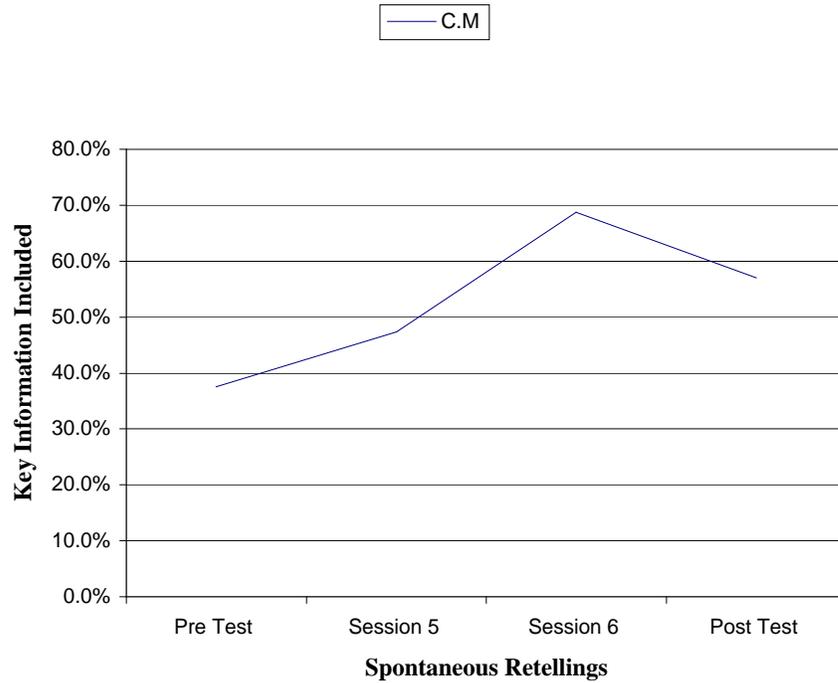
The following graphs describe M.G's performance.



These graphs demonstrate a significant gain in spontaneous retelling. An increase of 60.2% between pre and post testing scores is displayed. In terms of guided comprehension there was

no growth noted in this teaching period. This suggests the use of the two strategies taught made an impact for M.G solely at the literal comprehension level. Throughout the learning period, M.G. demonstrated the greatest need for teacher assistance. He was reasonably independent in using the visualization technique, pressing on the side of his head to activate the rewind button, but was constantly asking for assistance with selecting key ideas, to record on the information map. He also tended to write in sentences and his handwriting was very slow. Once completed, he was able to use the information to retell the story. His retelling focused mainly on the ideas recorded without much elaboration.

The following graphs describe C.M's performance.



These graphs demonstrate that C.M made a small gain at in her spontaneous retelling score, 19.5% to be exact. However there was a significant drop in her guided reading comprehension at 20%. This suggests that the use of the two strategies had both a positive and negative effect on her learning outcomes. C.M enjoyed coming to the sessions. She showed a preference for working on her own and spoke only when required. In sessions 3-6 she needed ongoing cueing to use the visualization technique. When using the information map, she tended to copy sentences from the text. Her retellings lacked fluency as she constantly referred to the information map for guidance.

Discussion

The data supports the hypothesis predominantly on one level of comprehension, which is “literal comprehension”. All students made gains in varying degrees in this area. The use of graphic organizers appeared successful for all students. Prior to their post testing tasks, they were asked to reflect on their learning over the six sessions and each was able to vocalize the use of their brain as a recorder to help them recall information. However there is not enough evidence to suggest that the use of visualization and graphic organizers, applied on their own, will assist students with the “higher order” comprehension skills. The increase in the number of key ideas in each student’s retelling seems to support the research on “Working Memory.” The visualization technique appears to have assisted students with recall of information and noting key ideas on the information map, has freed memory space thereby allowing students to concentrate on what they read without the pressure of forgetting what has already been read.

The data also demonstrates the highest retelling scores during Session 5 & 6. It is interesting to consider why this has occurred. Possible reasons could include factors such as group learning and teacher support. Even though students were required to work independently during these sessions, they were still aware that support would be given if they were experiencing great difficulties. M.G in particular required this assistance. The testing conditions, where students were required to work individually without any teacher support could have had an impact on the results.

One of the most interesting aspects of the data is that F.G, who is operating at the lowest text level, of the three students selected for this intervention, demonstrated growth across all areas assessed. In his description of what he had learned throughout the teaching unit he was able to describe the visualization technique and the recording of key ideas in detail. He also mentioned learning new words and how to spell them. M.G and C.M responses explained the two strategies with minimal details.

On reflection there are a number of possible reasons to explain this result. Oral language competence is the first. F.G’s oral language is of a reasonable standard. Although he has difficulties with vocabulary, he is able to engage in a conversation, provide opinions, and ask for assistance when necessary. Both M.G and C.M (to a greater degree) seem to lack these skills. M.G tends to use simple sentences in discussion. He relies on teacher’s questions to guide his responses. He will ask for assistance but often this is not a spontaneous reaction, and many times he waits for the teacher’s prompts. C.M, on the other hand, as noted earlier in this paper, has had ongoing difficulties with communication. Her behaviour in learning situations could be classified as “passive”. Throughout her primary schooling so far, she has tended to remain quiet in large group learning situations although small improvements have been noted in small group learning contexts. Therefore she has been quite happy to work on her own, within this teaching unit, but teacher intervention has often demonstrated a lack of understanding. One area, which was observed as causing the greatest difficulty, is vocabulary. Each of the students in this target group had difficulty understanding words in

many of the texts presented throughout the teaching sessions. Discussing the meaning of various words was necessary for their text comprehension.

A second explanation is related to students' individual abilities in identifying key ideas and summarizing them in point form. This research data seems to suggest that F.G has acquired this skill, but M.G and C.M would benefit from further instruction in this area.

The variation in the Guided Comprehension Scores suggests that assisting students with working memory difficulties does not have a significant impact on students' higher order comprehension skills and that other intervention programs may be needed. In terms of the Guided Comprehension scores, the actual PROBE Assessment tool might describe variations in learning gains, particularly in relation to C.M whose results show a loss in this area. The post- testing questions she was required to answer did not include any literal information, which was the area noted as displaying the most improvement. F.G and M.G, on the other hand were asked to answer a range of questions, which included literal knowledge. The PROBE manual states that a minimum 70% success rate in comprehension would indicate that a student has grasped the key ideas of that text. The results demonstrate that these students have not yet attained this level of understanding.

Observation throughout the intervention also highlighted the importance of self- efficacy. Over the six teaching sessions, as students seemed to gain confidence in their ability to complete the tasks required, they seemed happier and more at ease. "Taking risks" during learning situations is very important and self-efficacy can have an impact on this ability. At the end of each session, the students were given the opportunity to listen to themselves on tape. It was interesting to observe their reaction. Both M.G and F. G were quite happy to do this, however C.M refused, obviously feeling very self-conscious. The students' ongoing remarks throughout the intervention suggested that they were happy and eager to participate. At the end of each session they would ask if they could stay longer, and at the end of the unit they were disappointed that this small group could not continue to work together.

Implications for teaching practise.

Prior research into intervention programs has been supported by the findings of this action research. It has been suggested that in terms of reading comprehension, programs should target teaching of multiple strategies. The graphic organizers and visualization technique used in this research are only two of many techniques, which have been described as valuable tools to assist students' working memories however in order to assist students in acquiring comprehension skills beyond the literal level, they should be used in conjunction with text structure, schematic knowledge and specific text, vocabulary development.

This research also highlights the need for explicit teaching of comprehension skills. The small sample of students who took part in this intervention, each demonstrated some improvement at varying levels. It should follow, therefore that a classroom program, which uses explicit teaching strategies in reading comprehension, should see gains in students' ability within this area.

Specifically for this group of students it would be of vital importance that they continue receiving direct instruction in comprehension development. The six teaching sessions they took part in, demonstrated gains, however student practise with the two strategies would need to continue in order for the skills to become automatic. Furthermore these students would benefit from vocabulary development and activation of prior knowledge throughout the reading process to assist them in making links beyond the literal level of understanding.

Possible directions for future research.

The following questions, which have arisen from this research, could lead to follow up research.

- What is the level of transfer from this interaction to classroom work?
- What gains could be demonstrated from using visualization and graphic organizers in conjunction with vocabulary development and schematic knowledge?
- Will an increase in self – efficacy lead to improvements in learning outcomes?

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Pre-Testing (No information- map support provided)

Spontaneous Retelling by FG.

Story: River Journey (Reading Age 7.5-8.5years)

It was like about little boat race and well the kids they had to like um when they tried to look where the boats were they had to go, run over to each side. There were birds that were sent to get letters and e-mails from their houses when they were on holidays. (I don't really know)---

Main Literal ideas:

There was a boat.

Children were on the boat.

They were excited and wanted to see everything.

Fish and eels swam near the boat.

A kingfisher would often dive to catch a meal.

This was going to be the best summer holiday.

There are 8 main literal ideas in the text. FG's retelling included 3 of these main ideas. Therefore his retelling score is 37.5%

His guided comprehension was at 50%.

POST TESTING: F. G (Use of information map to support retelling)

What have you learnt in the past two weeks while we have been working together?

I've learnt how to use my brain as a video recorder and I've learnt much more with you to spell words as I was reading and remember words, how to spell them. I've learnt how to use an information map. What you got to do is you have to stop at six parts of a story and look back into your tape recorder and see what main parts you want to write in, not like big story sentence, you need just a word or a little sentence, it will be alright.

Story: The Puppy (Reading Age: 8-9years)

Spontaneous retelling by F.G.

There was a puppy that walked slowly down the street. It was raining and the puppy was cold. He didn't have anywhere to live but after it tells you the puppy's paws were cold. He used to have a family but he ran away because there was a fire and the puppy was scared so he just ran away. Lost, the puppy was lost and alone and frightened and was very sad, felt sad. He tried to get some food but the people said No and just drove off and left him without no food, the little puppy. And when he felt some faint and voices nearby and then people were friendly.

Main ideas.

There was a puppy. (1)

He was lost, cold and hungry. (3)

He once had a home. (1)

A fire had frightened him away. (2)

He had tried to get food but people were unfriendly. (2)

He heard voices and saw a light and walked towards it. (2)

There are 11 main literal ideas in the text. FG's retelling contains 8 of these main ideas; therefore his retelling score is 72.7%

His guided comprehension score was 62.5%

Session 5. The Cicada

Students were expected to work independently on this task.

F.G

Well there's this little insect she was a woman and the little insect lived underground and if she went up on top of surface she looked like a woman, underground she looked like a grub. Next she, when they were underground what they used to eat, they looked for roots and they used to suck out the water to make it soft, so they can eat it. Then, there's a bad spirit that found some food and ate it, then the woman found the spirit eating the food and she was really angry, the woman was very angry. The spirit followed the woman all the time around so the woman got very, very angry. Then the woman said, "That's it. I've had enough. Fight me here" The spirit was stronger but then the woman grew some wings and the spirit knocked her to the ground and then the spirit, the insect grew some wings and flew to a nearby tree. She was a cicada and she ate the leaves that she used to couldn't get and when the people used to hear her cries she used to know that they should pick the fruits because they're nice and sweet, the roots underground.

Main Ideas

There was a woman who lived underground. (2)

She looked like a grub underground and a woman above ground. (2)

She hunted for roots, which she soaked to make them soft. (3)

A bad spirit ate and stole her food. (3)

The woman got very angry. (1)

They had a fight but the spirit was stronger (2)

The woman grew wings and turned into a cicada (2)

She flew to a nearby tree. (1)

Grown cicadas live in trees and when people hear her cry, they know it is the best time to collect sweet roots of plants. (3)

There are 19 main ideas in the text. F.G's retelling contains 16 of these main ideas. Therefore his retelling score is 84%

Session 6 (Final Session) Jayne's Shoots A Basket

Students worked through this session independently, with minimal teacher support (only as required)

F.G

Well, first there was, there was Jayne her mum, the coach and her friends. We only know Jayne's name because it didn't tell us the others. Jayne loved basketball, she was all the time, late and too small, and the coach said she was too small. She tried and tried with her friends but she was still too small still didn't get it right, and so her mum saw how sad she was so she came outside and put a mark on the wall and Jayne had to jump and jump to get the mark, until she could get it mum put it higher. It went on for years so say about three years, and years and years. When the coach saw at the basketball place and said we need you for tonight's game because we need some more players so she went "Yeh!" so she went and then so she said I won't be going in I will be sitting here at the bench, won't be coming on so one of the players hurt her ankle because there were two minutes left so the coach said, come on Jayne, come in.

Main Ideas:

Jayne loved basketball. (2)

The coach said she was too small to play. (2)

She trained with her friends but still couldn't make the team. (2)

Her mother saw how sad she was and made a plan. (2)

She drew a mark on the wall and asked Jayne to jump and touch it. (2)

Her mother made a new mark and Jayne jumped to touch it. (1)

This went on for a few months. (1)

The basketball coach asked Jayne to play one day because he needed another player. (1)

She thought she would spend her time on the bench. (1)

Lucy hurt her ankle and the coach told Jayne to go onto the court. (2)

There are 16 main ideas in the text. F.G's retelling contains 14 of these main ideas. Therefore his retelling score is 87%.

Pre-Testing (No information- map support provided)

Spontaneous Retelling by M.G

Story: River Journey (Reading Age 7.5-8.5years)

People watching the boats go past and um, a man sitting near a tree and threw something in the water and he would catch something to eat.

Main literal ideas:

There was a boat.

Children were on the boat.

They were excited and wanted to see everything.

Fish and eels swam near the boat.

A kingfisher would often dive to catch a meal.

This was going to be the best summer holiday.

There are 8 main literal ideas in the text. M.G's retelling included one of these main ideas.
Therefore his retelling score is 12.5%

His guided comprehension was at 62.5%

POST TESTING: M.G Use of information map to support retelling

What have you learnt in the past two weeks while we have been working together?

Using my brain as a video recorder. I can read a story and make pictures in my head and write in on this information map. Helps you think about what you're writing, then you rewind the video recorder in your brain, shows you the picture and if your stuck on something you can just make it go "backer and think about what you said.

Story: *The Puppy* (Reading Age: 8-9years)

Spontaneous retelling by M.G.

This puppy was frightened out of his house, he didn't have an owner. He was walking slowly down the lanes. He was cold. Two days not eating food. His paws were hurting so he couldn't have a rest, he had to keep walking. He was walking on the hard ground, there were rocks. There was a fire, but the dog ran away. He was lonely. He had no idea what to do. Went to get a meal, he got driven away. He thought the people were kind and friendly. He saw a light shining and stepped to it. We don't know what happened in the rest.

Main ideas.

There was a puppy. (1)

He was lost, cold and hungry. (3)

He once had a home. (1)

A fire had frightened him away. (2)

He had tried to get food but people were unfriendly. (2)

He heard voices and saw a light and walked towards it. (2)

There are 11 main literal ideas in the text. MG's retelling contains 8 of these main ideas; therefore his retelling score is 72.7 %

His guided comprehension was 62.5%

Session 5. The Cicada

Students were expected to work independently on this task.

M.G

Well at the start of the story she was a little kid, um, she was a little bug and then when she went like near the water, she was a woman, and she lived underground and ah, she was a grub, she looked like a grub, She hunted for roots and they / she soaked them so they became all soft and she/ there was a bad spirit and it always followed her and ate all her food and she ran away and she was laughing and the spirit was following her everywhere and it / the spirit was always stealing food by the woman , cause she always used to found the food. She felt angry, she got angrier and angrier with the spirit and then they fought, but the girl had a stick in her hand and she knocked the spirit down and the spirit was stronger and then the girl growed wings to fly away and she flew to a tree and she.... Became a insect and when she cried she... she um, everyone would pick and search for roots and um it / then she wanted to eat the sweetest roots and lived happily ever after.

Main Ideas

There was a woman who lived underground. (2)

She looked like a grub underground and a woman above ground. (2)

She hunted for roots, which she soaked to make them soft. (3)

A bad spirit ate and stole her food. (3)

The woman got very angry. (1)

They had a fight but the spirit was stronger (2)

The woman grew wings and turned into a cicada (2)

She flew to a nearby tree. (1)

Grown cicadas live in trees and when people hear her cry, they know it is the best time to collect sweet roots of plants. (3)

There are 19 main ideas in the text. M.G's retelling contains 15 of these main ideas. Therefore his retelling score is 79 %

Session 6 (Final Session) Jayne's Shoots A Basket...

Students worked through this session independently, with minimal teacher support (only as required)

M.G.

Jayne loved basketball and she loved to play but she was too small to get on the team and she tried and tried to get on the team but she always late she would always try to hurry to school but she was late and she played at home with her friends and she practiced with Lucy and Carla. Couldn't make the team, she was too small. She played with her friends, Jayne was sad. Her mum had an idea, she put marks on the wall and Jayne had to jump to it. Jayne had to reach higher and higher and she tried and tried to jump on the wall, tried and touch the mark. She jumped higher and higher, it took a few months and coach wanted Jayne on the team. Jayne was on the bench; Jayne went on the court because one person might have sprained their ankle.

Main Ideas:

Jayne loved basketball. (2)

The coach said she was too small to play. (2)

She trained with her friends but still couldn't make the team. (2)

Her mother saw how sad she was and made a plan. (2)

She drew a mark on the wall and asked Jayne to jump and touch it. (2)

Her mother made a new mark and Jayne jumped to touch it. (1)

This went on for a few months. (1)

The basketball coach asked Jayne to play one day because he needed another player. (1)

She thought she would spend her time on the bench. (1)

Lucy hurt her ankle and the coach told Jayne to go onto the court. (2)

There are 16 main ideas in the text. M.G's retelling contains 14 of these main ideas. Therefore his retelling score is 87.5%
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Pre-Testing (No information- map support provided)

Spontaneous Retelling by C.M

Story: Maria (Reading Age 9-10years)

Well. Its about when she went in a plane she was looking out the window and um and earth looked like patchwork because the clouds were in the way and um that the people were reading and talking instead of looking..

Main Literal Ideas:

Maria was in a plane.

She could see the land below, everything was tiny and looked like a patchwork.

She was amazed that all the other passengers were just reading and talking.

She wanted to share her excitement but she was too shy.

She could see a river below.

She would have to wait until she got home to tell her parents about it.

There are 8 main literal ideas in the text. C.M's retelling included 3 of these main ideas. Therefore her retelling score is 37.5%.

Her guided comprehension was at 60%.

POST TESTING: C.M Use of information map to support retelling)

What have you leant in the past two weeks while we have been working together?

How to use your recorder to imagine stuff. Then you write on your information map. You write key words.

Story: Kevin (Reading Age 9.5 – 10.5)

Spontaneous retelling by C.M

He stood near the shore of the lake and he looked across to an island and it wasn't very far and some of his friends had swum across. He had great friends and he couldn't swim very well and he was afraid.

He had a secret, his friends didn't know and Kevin went back and he saw a thick branch and he took it to the water and then went safely across.

Main ideas.

Kevin looked across to a small island (2)

His friends had swum across before. (1)

They had told him of many adventures. (1)

Kevin wasn't a strong swimmer and he was afraid to go alone. (2)

He kept that a secret from his friends (1)

As he was going back home he saw a thick branch (2)

He had an idea he had seen in a movie (1)

He carried the branch and launched it in the lake (2)

He held it and kicked is way safely across to the island (2)

There are 14 main literal ideas in the text. C.M's retelling contains 8 of these main ideas; therefore her retelling score is 57%

Her guided comprehension was 40% (Interesting to note that there were no literal questions asked)

Session 5. The Cicada

Students were expected to work independently on this task.

CM.

Well first she was a woman and ...when she went underground she was like a worm and... when she comes out she looks like a cicada, and she looked like a grub, then she went to collect food, then the spirit came and stole some and every time the spirit came she got angrier and angrier, then she said, "Come and fight." Then they started fighting, then the spirit made her fall down, and then she grew wings and said, "Can't get me." Then she flew to the nearest tree, and when you hear the cicada cry it means that you can go to the nearest plant to get the sweetest fruit.

Main Ideas

There was a woman who lived underground. (2)

She looked like a grub underground and a woman above ground. (2)

She hunted for roots, which she soaked to make them soft. (3)

A bad spirit ate and stole her food. (3)

The woman got very angry. (1)

They had a fight but the spirit was stronger (2)

The woman grew wings and turned into a cicada (2)

She flew to a nearby tree. (1)

Grown cicadas live in trees and when people hear her cry, they know it is the best time to collect sweet roots of plants. (3)

There are 19 main ideas in the text. C.M's retelling contains 9 of these main ideas. Therefore her retelling score is 47.3%

Session 6 (Final Session) Jayne's Shoots A Basket...

Students worked through this session independently, with minimal teacher support (only as required)

C.M

Jayne wanted to play basketball team and the coach said she was too small and she kept on jumping until she could reach, then her mum said that she made a mark and every time she jumps and touched it her mum moved it up more. She was practicing with her friends then she still couldn't go in and it took a couple of months for her to learn. Then she reached it, and her mum saw that she was sad so she helped her, then she went to the netball court, then the coach said you improved, she was learning and Lucy twisted her ankle then the coach said come on, you can go and do it.

Main Ideas:

Jayne loved basketball. (2)

The coach said she was too small to play. (2)

She trained with her friends but still couldn't make the team. (2)

Her mother saw how sad she was and made a plan. (2)

She drew a mark on the wall and asked Jayne to jump and touch it. (2)

Her mother made a new mark and Jayne jumped to touch it. (1)

This went on for a few months. (1)

The basketball coach asked Jayne to play one day because he needed another player. (1)

She thought she would spend her time on the bench. (1)

Lucy hurt her ankle and the coach told Jayne to go onto the court. (2)

There are 16 main ideas in the text. C.M's retelling contains of these main ideas. Therefore her retelling score is 68.75%
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Appendix

Aim Of this Teaching Unit:

To enhance students' comprehension at the whole text level. To provide students with strategies that will assist them to retain key ideas and retell the main ideas of a text in a sequential order.

- In terms of John Munro's (2002) "A Model for understanding literacy learning disabilities" this intervention is directed at the sentence and concept levels. It assists students to visualize, recode images into words, pause and consolidate and paraphrase in order to retell a text.
- This unit has been designed for a small group (3 children) of Year 3 students who have demonstrated some difficulty with reading comprehension.
- This teaching unit is comprised of six 50-minute sessions. The students have been grouped together for the teaching sessions. This decision has been based on two reasons:
 - i. To provide support via reciprocal teaching of the two new strategies students are being asked to use.
 - ii. The limited time frame allocated to this research project does not allow for individualized teaching.
- The short narrative texts, which have been selected have been analysed using Fry's readability graph, to determine approximate grade level.
- The unit assumes knowledge of Narrative Text structure and the ability to select key ideas.
- The students have been involved in an intensive teaching unit in that the six sessions took place over a two-week period.
- The sessions were planned so that students began working with a great deal of support / scaffolding and gradually moved to greater independence in using the two strategies of visualization and recording key ideas on an information map.
- Sessions 5 & 6 where students were expected to work independently, as well as pre and post testing sessions were and transcripts were analysed according from a spontaneous and guided retelling perspective.
- Any work completed by students has been included in the appendix of this paper.

Session 1:

Objective: To introduce the visualization strategy to the students.

Method:

1. Explain to students that we are going to concentrate on how our brain can help us to remember many things.
2. Ask children to close their eyes and think of their brain as a video camera. “Your brain takes a movie of everything you do, see, read, write etc...” It remembers everything. Sometimes you may need to press the rewind button to go back and choose something in your memory that you need”
3. Ask children to rewind the clock to this morning when they were in their bedroom. “Make a picture in your mind about all the things that are in your room. Think about the colours, the smells, how it makes you feel, the position of furniture and toys.
4. Provide students with a piece of paper. Ask them to record their memories using key words (stress that spelling is not of major importance here. They can attempt a word or ask the teacher to assist them) Students will be given a short time 5-10mins to complete this task.
5. When students have completed their work, each student will be asked to describe their room to the rest of the group
6. Provide positive feedback to each child. Link the reading process to the activity that they have just been involved in. “When you are reading, use your brain as a video recorder. Take a movie of the text and then you can rewind to the beginning and remember all the important things that happened.” Focus students’ attention on the cueing card and the questions on it.
7. Read “Mr. Mancini’s Rats “ Ask the students to close their eyes, listen to the story, and make a video.
8. Ask each student to rewind the video, think about the questions and recall what they remembered.

Resources :

Cue card to assist with visualization

Paper

Text: Hazell et al, “Mr. Mancini’s Rats”, The Three R’s, Book 1 pg 8

Pencils / texts

Tape recorder

Session 2

Objective: To revise the visualization strategy introduced in the previous session and introduce the concept of an information map to students.

Method::

1. Review what we learnt in the previous session. Ask students “What did we learn about our brain? How does it help us to be better readers?” What questions do we ask ourselves when we are making a video tape?
2. Explain that in this session we will learn how to record information we hear and remember to help us further with our reading and understanding.
3. Introduce the Information Map and explain that is organized to help us record information sequentially.
4. Read: “Princess Oink” to students. (At this stage it is important to support and scaffold the learning process. Therefore students will not yet be required to read text) Ask students to close their eyes and make a video of the story they are hearing.
5. Pause and selected pauses in the text. Ask students to rewind their video- tape and recall the main ideas read in that section of the text. (At this point, students will not be required to do any writing. The teacher will record information, modeling the use to the information map with students.
6. At the completion of the reading / recording procedure, read through the information map together and then ask each student to retell the story in their own words, referring to the information map, as necessary.

Resources :

Cue card to assist with visualization

Information Map

Text: Lynley Walters “Princess Oink” “Ready For English” Book 3, Page

Pencils / Texts

Tape recorder

Session 3

Objective: To revise the visualization and information map strategies introduced in the previous sessions. To practise the application of these strategies, given teacher support.

Method: :

1. Review what has been learnt so far in the previous two sessions.
2. Explain the objective of this session.
3. Explain to children that the text has been divided for them into six sections/
4. Read each section of “ A Very Bad Case Of Witch’s Curse.
5. Cue students: Ask students to close their eyes and make a video of the story.
6. At the end of each section, pause and discuss what they have visualized.
7. Select key words or phrases that would be appropriate to record on the information maps.
8. Write together. Teacher will record on an enlarged copy of the map; students will copy onto their own.
9. At the end of the session. Ask each student to refer to the information map and retell the story.

Resources :

Cue card to assist with visualization

Individual information maps.

Enlarged copy of the information map, which will be used by the teacher, to scaffold learning.

Text: Robinson H, “A Very Bad Case Of Witch’s Curse” Page 32

Pencils/ Textas

Tape recorder

Session 4

Objective: To revise the visualization and information map strategies introduced in the previous sessions. To practise the application of these, providing teacher support as needed.

Method:

1. Review what has been learnt so far in the previous sessions, i.e. How can we help our brain to remember what we have read? What questions do we ask ourselves while we are recording? What can we use to record our memories? What do we record on the information map?
2. Explain the objective of this session.
3. Allow students to assist in dividing the text into six sections. (This matches the six boxes they need to complete on their information map)
4. Before reading ask students to explain what they are going to do while reading and after reading each section. (i.e. make a video and rewind the tape)
5. Read together, each section of “The Gobblers”.
6. At the end of each section, pause and discuss what they have visualized.
7. Select key words or phrases that would be appropriate to record on the information maps.
8. Write together. Teacher will record on an enlarged copy of the map; students will copy onto their own.
9. At the end of the session. Ask each student to refer to the information map and retell the story.

Resources:

Cue card to assist with visualization

Individual information maps.

Enlarged copy of the information map, which will be used by the teacher, to scaffold learning.

Text: Robinson H, “The Gobblers” Page 52

Pencils / Textas

Tape recorder

Session 5

Objective: To consolidate the use of the visualization and information map strategies introduced in the previous sessions. To practise the application of these Teacher support will only be available if students are experiencing difficulty.

Method:

1. Review what has been learnt so far in the previous sessions. Each student explains what he or she has learned so far in this unit of work.
2. Explain the objective of this session.
3. Ask students to scan over today's text, "The Cicada" and divide it into six sections, which they will use before reading and completing the information map. Students share their decisions. (Consensus is not necessary)
4. Prior to reading ask students to explain what they are going to do while reading and after reading each section.
5. Using the guided reading approach, ask students to read to the end of each selected section. of "The Cicada". (Listen to individual students whilst they are reading independently) Students may ask for clarification of new vocabulary items.
6. At the end of each section, pause. Ask students what they will do now? (Students should be able to recall that they need to rewind the tape and record information on the map) Allow students time to record their key words or phrases. Allow students to complete this task independently. Provide assistance with spelling if necessary.
7. At the end of the session. Ask each student to refer to the information map and retell the story.

Resources:

Cue card to assist with visualization

Individual information maps.

Text Monaghan B, "The Cicada", Page 19

Pencils / Textas

Tape recorder

Session 6

Objective: To revise the visualization and information map strategies introduced in the previous sessions. To practise the application of these, independently.

Method:

1. Explain the objective of this session. Today you are going to show me what you have learnt together during the past two weeks. You will be expected to work on your own but you may ask for help with any words you do not understand. You do not need to wait for each other to complete today's work, just work at your own pace.
2. Ask students to scan over today's text, "Jayne Shoots A Basket" and divide it into six sections, which they will use before reading and completing the information map.
3. Prior to reading ask students to remember what they will do while reading and after reading each section.
4. Using the guided reading approach, ask students to read to the end of each selected section. (Listen to individual students whilst they are reading independently)
5. Observe the level of independence as students read, recall main ideas and record these on the information map.
6. At the end of the session. Ask each student to refer to the information map and retell the story.

Resources:

Cue card to assist with visualization

Individual information maps.

Text Wheeler Mike, "Jayne Shoots a Basket" Pages 2-6

Tape recorder

Resources used:

The texts, which have used in these sessions, have been taken from the following:

- Hazell V, Ford J and Edwards P (1995) *The three R's: Read it, Remember it, Retell it. Book 1*, Longman Australia PTY, LTD.
- Monaghan B, (1999) Everyday English, Book 3, Oxford University Press.
- Robinson H, (1999) *Read About, Think About, Book 1 (Encouraging all students to read and think creatively)*, Horwitz Martin.
- Walters L, (1997) *Ready For English Book 3*, Oxford University Press.
- Wheeler M, (Editor) (2001) *Reading Safari Magazine, "Basketball"*, McMillan Education Australia, PTY.LTD.

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