Teaching Year 4 Students to use synonyms and visualisation during reading will increase comprehension of Non Fiction Texts

Abstract

Research has shown that the development of reading comprehension can be impeded due to the lack of explicit modelling and instruction of cognitive strategies that assist the reader to engage with the text at a deeper level. The present study examines nine Year 4 students, six with comprehension difficulty and three who perform inconsistently on comprehension tasks and their improvement in comprehension as a result of applying synonyms and visualisation while paraphrasing using the RAP Acronym (Read the text, Ask yourself what is the main idea, Put the main idea in your own words) in a small group setting versus a whole class approach. The findings of this study indicate significant gains in synonyms and paraphrasing ability and slight increases in overall comprehension. This slight increase can be contributed to the limited duration of the intervention and the delay in the post testing of the subjects. To achieve an increase in reading comprehension, vocabulary needs to be enhanced through the teaching of synonyms, while the skills of visualising and paraphrasing assist in building a literal and inferred interpretation of the text. Explicit instruction of these strategies over an extended period of time will contribute to an increase in reading comprehension of non fiction texts.

Introduction

Reading Comprehension is a problem for many middle primary level students (Munro, 2005). For comprehension to take place, students need to be applying cognitive strategies while they are reading (Lee & Von Colln, 2003). Despite increasing research that supports explicit teaching of cognitive strategies to improve outcomes in reading comprehension, "strategy instruction has not been incorporated into the curriculum" (Thompson, 1985, as cited in Lee et.al, 2003 p. 4). Therefore, students are not equipped with the knowledge or skills needed to fully process and comprehend what they are reading (Fisk & Hurst, 2003).

Parker, Hasbrouck & Denton (2002) found that students may demonstrate poor comprehension skills for a variety of reasons. These may include an inability to;

understand key words and sentences, understand how sentences may relate to each other and how the information in the text is organized and fits together in a meaningful way. Parker et al (2002) also found that comprehension will be impeded due to lack of fluency in reading which causes a reader to lose the meaning at sentence level. Fisk & Hurst (2003) assert that a student's inability to identify the main idea and find supporting evidence within a text will impede comprehension and found that teaching students appropriate strategies that practice these skills promotes reading comprehension.

Munro (2004), Lee et.al (2003) and Katims & Harris (1997) have all supported the notion that through explicit strategy instruction reading comprehension will improve in all students. "The focus of cognitive strategy training is on changing the efficiency and effectiveness with which students process essential information" (Katims et.al, 1997 p.118). That is, it aims to expose students to useful reading strategies through teacher modelling and then eventually, self application, to help them effectively process what they have read. It is then that comprehension will occur. Research in this area has recommended many comprehension strategies to be used in literacy teaching (Mastropieri & Scruggs, 1997; Pressley, Brown El-Dinary & Afferbach, 1995 as cited in Munro, 2004). These strategies may include visualising, self questioning and paraphrasing (Parker et al 2002).

Visualising is a literal strategy whereby the student makes a mental picture of what they have read. As they read, they continue to add to this visual picture until they have made a type of mental imagery movie of the text they are reading. "When students create a picture in their mind, their level of engagement with the text increases" (Harvey & Goudvis, 2000, p. 23). It is through paraphrasing and visualising that the students can enhance their understanding of what they are reading. (Harvey et al, 2000). Sorrell (1996) asserts a "combination of two or more techniques such as paraphrasing and visualising provides an effective approach to teaching comprehension skills" (p. 12), while Bell (1991, as cited in Casteel, Isom & Jordan, 2000), suggests that there is encouraging evidence of imagery based learning improving reading comprehension as strong readers are able to create an imagined whole of the details rather than trying to hold onto the many parts separately.

Students who have comprehension difficulty need to be taught explicitly appropriate strategies and actions such as those noted by Parker et al, (2002) that will assist them to manage the text they are reading. They may experience "difficulties creating an image of the text they are reading" (Lindamood & Bell, accessed 23/5/06) or difficulty finding the main idea or key concepts while reading. If students are taught these cognitive strategies as actions and shown how to use them as "self instructional statements they can remind themselves of how to store what they have read in their long term memory" (Munro, 2004 p. 836) therefore resulting in comprehension.

As a teacher coming from the junior school setting into the middle school in the last two years, it has been noted that students in the middle years three and four are lacking in such cognitive strategies, therefore are experiencing difficulties in the area of comprehension. A possible influence could be due to the high demand of current early years literacy programs in the Junior School to focus on the decoding of text at the word level in order to achieve governed benchmarks, rather than delving deeper into the multiple levels of comprehension and teaching students strategies to understand what they are reading. It has been found that teachers are spending their time on phonics and fluency in themselves important building blocks, however relatively little attention has been given to vocabulary and comprehension development (Carlisle, 2004). It has been found through the use of such tests as the PROBE and PM Benchmark Kit that the students are coming into Years Three and Four decoding 28+ text at word level, however their comprehension rating is many levels below, therefore indicating their reading and comprehension levels are not evenly matched for their reading age. It is vital for these middle years students to be taught explicit cognitive strategies and actions to assist them with comprehension. One such effective strategy is paraphrasing.

Paraphrasing is the skill of using synonyms (words that have the same or similar meaning) to retell the main idea of a sentence in your own words. It has been shown to "increase reading comprehension" (Lee et al, 2003 p. 4) and was found by Fisk & Hurst (2003) and Katims et al (1997) to increase significantly the reading comprehension of all students in fiction and non fiction texts. Paraphrasing is a "multi step cognitive strategy that teaches students to say what they have read in their own words with a goal of increasing comprehension." (Lee et al, 2003 p. 7) It is a "meta

cognitive strategy that seems to be a relatively simple strategy to teach to students using a three step acronym known as the RAP, which triggers an inner dialogue of when to apply the skill of paraphrasing" (Katims et al, 1997 p. 118). It is through the use of the paraphrasing strategy and the RAP Acronym (Read the text, Ask yourself what is the main idea and Put the main idea in your own words) that reading comprehension can be increased. (Schumaker, Denton & Deshler, 1984 as cited in Lee et al 2003; Parker et al 2002; & Katmis et al 1997).

To convert what we have read into knowledge (that is to comprehend) students need to act on the information they are reading in a variety of ways (Munro, 2004). This study aims to contribute to the body of research purporting that through the use of the visualising and paraphrasing strategy, comprehension can be improved and strengthened.

It is predicted that teaching Year Four students with comprehension difficulties to use synonyms and visualisation while paraphrasing during reading will improve their expressive comprehension of non fiction text.

Method

Design: The study uses an OXO design within a classroom setting in which the improvement of reading comprehension following the teaching of the cognitive strategy of paraphrasing is monitored for Year Four students who have reading comprehension difficulties.

Participants: Nine students were selected for this study from the same Year 4 class. These students were divided into three separate groups; Group A consisted of three students (two boys and a girl) of the same word decoding and comprehension level difficulty and would receive the teaching intervention. Group B consisted of three students (two girls and one boy) of the same word decoding and comprehension level difficulty matched to Group A and these would act as the control group and only receive whole class instruction. Group C consisted of three students (two boys and a girl) whose word level and comprehension levels are matched and are above those of Group A and B but perform inconsistently on comprehension tasks. Group C would also receive only whole class instruction.

The inclusion of Group B (the control group) in the study was to compare how effective the small group focused teaching of the paraphrasing strategy was compared to that of the whole class teaching of the strategy. Group C's inclusion was to compare levels of improvement between the groups to factor out any possible chance elements. All participants in Groups A and B had significant difficulty comprehending texts for their reading age however possessed no difficulties with word decoding. Table one below outlines further information of the students in the intervention group;

Table One: Personal Information of Intervention Group (Group A)

	Student A	Student B	Student C
Age	9 yrs months	9 years months	9 years months
Language Spoken	English	English	Spanish and English
Impairments	Auditory Processing Difficulty.	Vision (glasses worn when reading)	None
Prior Interventions	Classroom withdrawal for reading intervention	Classroom withdrawal for reading intervention.	None
General Behaviour	*Disruptive previous year with several class teacher changes. *Loss of motivation for learning and low self efficacy.	*Distracted easily and moves off task. * Disruptive previous year with several class teacher changes.	*No major issues however possesses low self efficacy as a learner.

Materials: Materials used is this study included;

- **Synonyms Task:** used to determine students ability to identify and use synonyms in pre and post testing.
- **PM Benchmark Kit** The Level 26 Text "The Game of Soccer" was used to assess students prose reading, their ability to paraphrase and answer literal and inferential comprehension questions in pre and post testing.
- Teaching Sequence Paraphrasing Small Group: provided guidance and structure for intervention sessions.
- Teaching Sequence Whole Class Focus: Session by session outline of whole class teaching.

- Learning Words 1: A Catholic Education Office Speech Pathology program.
 Section Three: Similarities and Differences was used to assist with teaching synonyms. Activities 1-4 were used. (Appendix Three for examples)
- **Student Journals:** students in Intervention Group would complete any set activities in teaching sequence and reflections of learning in these.
- **Teacher Observation Sheet:** for teacher to jot down observations and progress over the intervention sessions.
- Texts Extracts from Elementary Physics Series of texts (Appendix Four for examples)

Procedure: All nine participants were pre and post tested. The intervention students in Group A were subjected to whole class and then focussed small group teaching within the classroom setting across eight sessions in a row. They were taught during the literacy block in the first two hours of the school day. Each session consisted of approximately 30 minutes. The sessions were based around Munro's *Comprehension – Paraphrasing* Teaching Sequence (2005) and general teaching practice which included the following; Tuning In, Teacher Modelling, Student Demonstration, Independent Application, Teacher Feedback, Share Time and Reflection. The Students in Group B and C were subjected to Whole Class Instruction only which consisted of Teacher Modelling, Student Application, Share Time and Teacher Summary. Each session lasted approximately 15 – 20 minutes.

Description of Pre and Post Test Tasks

The following tests and tasks were used for Pre and Post Testing;

- Prose Reading Ability: the Level 26 text The Game of Soccer was used from the PM Benchmark Kit to assess the students Prose reading Ability and a Running Record was taken.
- Reading Comprehension: The comprehension questions that accompany the text were then administered where the student answered the literal, inferential and evaluative questions in written form. (appendix five)
- Paraphrasing Ability: As the student read the text aloud and the running record was taken, they were stopped after reading each sentence and asked to say what they had read in their own words without looking at the text. Their

- paraphrase was recorded word for word on a record sheet and then scored (appendix six)
- **Synonyms Test:** Munro (2005) Synonyms Task was used to assess the students ability to identify synonyms of words. (appendix seven)

Results

Prose Word Reading and Comprehension were assessed together using the same text and participants were asked to paraphrase each sentence as they read. Their ability to identify and use synonyms was also assessed using a separate test. These tests were conducted prior to and post the paraphrasing teaching on all participants in the study. Post testing occurred one week following the conclusion of the intervention sessions. Pre and Post test results can be found in Table Two A below:

Table Two A: Pre and Post Test Results - Intervention Group A

	Stud	Student A Student B		Student C		
	Pre Test	Post	Pre Test	Post Test	Pre Test	Post Test
	Score	Test	Score	Score	Score	Score
		Score				
Prose Reading	100%	95%	100%	96%	100%	100%
Ability	Accuracy	Accuracy	Accuracy	Accuracy	Accuracy	Accuracy
Comprehension	11/20	11/20	13/20	13/20	13/20	15/20
	55%	55%	65%	65%	65%	75%
Paraphrasing	15/30	22/30	18/30	29/30	18/30	28/30
	50%	73%	60%	97%	60%	93%
Synonyms Test	8/29	12/29	15/29	16/29	12/29	15/29
	28%	41%	52%	55%	41%	52%

Results in Table Two above, show an increase in paraphrasing ability and in the synonyms task for all participants after receiving the intense small group intervention. The results also show two of the three participants with minimal if any increase in comprehension. Results for the intervention group indicated a greater percentage increase in paraphrasing ability than for the synonyms tasks, although growth still occurred here. Paraphrasing showed the greatest growth with two students showing an average of 30% increase. Students B and C showed significantly better progress than Student A, however an increase in ability was still achieved.

The result of participants in the intervention group does not consistently support the prediction of the study. Aspects of Reading Comprehension, that is synonyms and paraphrasing showed improvement, however improvement in overall comprehension was not supported by the results.

Throughout the small group teaching of the intervention group, Student A's progress was always slightly less when compared to that of Student B and C. The results of the study support this observation, as Student A's percentage growth of achievement was lower than the other two participants. It was observed during the teaching tasks that Student A's ability to apply and internalise concepts being taught was limited and showed very little persistence with the tasks presented. This is evident in his comprehension results, with no change in his comprehension as a result of the intervention. The minimal change in comprehension may well be linked to Student A's Auditory Processing Difficulty thus impacting on his ability to process the set information at the same rate as Student B and C. It is the author's opinion that the progress shown by this student is still important however, given his processing difficulty.

Student B displayed consistent progress throughout the study, with an ability to clearly articulate the steps of the strategy and then apply them with minimal prompting. Student B showed an increased interest in the tasks presented and a slight increase in the use of self efficacy statements was observed (eg: "I am really beginning to understand this!"). Student B's results show the greatest increase in paraphrasing ability with an increase of 37%. Student B's trends do not support the prediction of the study. Student C's results indicate growth in all areas of the study as she seemed to pick up the instruction faster, showing consistency in responses. Student C's trends support the prediction of the study.

Table Two B: Pre and Post Test Results - Control Group B

	Stud	ent A	nt A Student B		Stud	lent C
	Pre Test Score	Post Test Score	Pre Test Score	Post Test Score	Pre Test Score	Post Test Score
Prose Reading	100%	100%	100%	100%	98%	100%
Ability	Accuracy	Accuracy	Accuracy	Accuracy	Accuracy	Accuracy
Comprehension	11/20	12/20	12/20	12/20	10/20	11/20
	55%	60%	60%	60%	50%	55%
Paraphrasing	15/30	23/30	21/30	24/30	17/30	23/30
	50%	77%	70%	80%	57%	77%
Synonyms Test	14/29	18/29	9/29	11/29	14/29	16/29
	48%	62%	31%	38%	48%	55%

Trends for the group indicate a slight increase in reading comprehension and synonyms, with averages of 5% and 9% respectively. The most significant growth was paraphrasing with an average of 19% increase. The results of the control group indicate teaching of paraphrasing to the whole group may bring a slight increase in comprehension. This supports the tenant that small group focussed and targeted teaching is a more beneficial strategy to use.

The performance of the Control Group indicated mixed results with some of the results showing support for the hypothesis of the study. Student A outperformed the other two students of the control group. Student A's results indicate a significant increase in paraphrasing and the ability to identify and apply synonyms to their reading, while the increase in comprehension was slight, that is 5%. Student A's results support the hypothesis of the study. Student B's results do not support the hypothesis of the study as there was no change in their comprehension rate. Student B's results indicate some growth in ability to identify synonyms, with a greater increase in his paraphrasing ability.

Student C's results indicate some growth in all areas, with the greatest increase in paraphrasing of 20%. Student C's results support the hypothesis of this study.

Table Two C: Pre and Post Test Results - Group C

	Stud	ent A	Student B		Student C	
	Pre Test Score	Post Test Score	Pre Test Score	Post Test Score	Pre Test Score	Post Test Score
Prose Reading	100%	100%	100%	100%	98%	100%
Ability	Accuracy	Accuracy	Accuracy	Accuracy	Accuracy	Accuracy
Comprehension	9/20	11/20	12/20	14/20	15/20	16/20
	45%	55%	60%	65%	75%	70%
Paraphrasing	14/30	27/30	16/30	16/30	23/30	25/30
	47%	90%	53%	53%	77%	83%
Synonyms Test	16/29	19/29	13/29	13/29	11/29	18/29
	55%	66%	45%	45%	38%	62%

The results of Group C matched the mixed results found in the Control Group. Whilst two student's levels of comprehension increased, this was not the case for the third student. Student A's results show significant growth in all areas of the study, particularly in the areas of paraphrasing and synonyms. The results of Student A

indicate support for the prediction of this study. Student B's results show no change in paraphrasing ability or in the ability to use synonyms. Student C's results indicate a significant improvement in paraphrasing ability and synonyms.

Summary of Results for the Three Groups

Table Three: Average Pre and Post Test Scores for the three subject groups.

		Intervent Group			Contr Group			Group	C
	Pre Test	Post Test	Increase (+) Decrease (-)	Pre Test	Post Test	Increase (+) Decrease (-)	Pre Test	Post Test	Increase (+) Decrease (-)
Comprehension	62%	65%	+3%	55%	58%	+3%	60%	63%	+3%
Paraphrasing	57%	88%	+31%	59%	78%	+19%	59%	75%	+16%
Synonyms Test	40%	49%	+9%	42%	52%	+10%	46%	58%	+12%

Table Three outlines the average pre and post test results for all of the groups.

Trends for the three groups show growth in paraphrasing, with a greater percentage increase from the Intervention Group.

Discussion

The aim of this study was to determine if teaching students to use synonyms and visualising while they paraphrase a text would improve reading comprehension of non fiction texts. To measure change in comprehension, students performance on pre and post tests from the intervention group were compared to that of the students who were in the control group and only received whole class teaching.

While the results were mixed for all groups, the results of the intervention group were the most interesting. Parker et al (2002) concluded a students inability to understand key words, how they relate and are organised in the text results in poor comprehension. The subjects of the Intervention Group had a poor synonym knowledge and were unable to take advantage of this strategy due to their low vocabulary. Through small group instruction, the subjects were given some vocabulary direction through the use of synonyms in order to increase comprehension rate. As a result there was success with the synonym instruction, with improvements ranging from 3 to 13%, keeping in mind however post testing occurred a full week after

instruction concluded and there was no opportunity to review concepts therefore the result is delayed and indicates a long term effect the strategy has had. It would be expected the results may have been slightly higher if the testing had of occurred immediately after the conclusion of the sessions. It was encouraging however a 'flow on effect' of synonym and vocabulary building became evident across other subject areas of the classroom, with the students applying synonyms to their Maths learning, offering signs of a broader application of the strategy outside of reading.

It was observed during the reading task in the post testing, both Student A and B had difficulty maintaining fluency of the text. As the text was read, both Student A and B stumbled over words that has previously been read in the pre testing, applying little if any self corrections to maintain meaning of the text. Their reading was disjointed and lacked continuity with the focus then becoming more on the word decoding rather than on the meaning of the text itself. The prose reading performance of both Student A and B may well be a factor impeding the limited reading comprehension progress on the Post test. This observation supports the findings of Parker et al (2002), that reading comprehension will be impeded due to a lack of fluency when reading.

The findings of the study indicate explicit modelling and teaching of synonyms and visualising while paraphrasing improved comprehension for 70% of the overall sample. While this result is positive, the results were taken a period of time after the strategy instruction took place, so may not be a true indication of actual performance directly after teaching had concluded. In order for a higher success rate to be achieved, a longer period of intervention would need to be undertaken. For Student A and B in the Intervention Group, the lack of variability in prose reading needs to be considered as previously stated, therefore reducing overall comprehension rate in the Post Testing. During the small group intervention, self efficacy statements increased, with Student B commenting at the conclusion of a session towards the end of the intervention that he was so surprised he didn't have to refer back to the text once in order to answer the comprehension questions. When asked why he thought this was, he concluded it was because he had been able to paraphrase the text in 'his own way'. Student C's performance on post testing tasks displayed a positive result, with a total growth in comprehension of 10%. This result supports the findings of Munro (2004), Lee et al (2003) and Katims et al (1997) that with explicit strategy instruction reading comprehension will improve.

Difficulties with reading fluency may also impede on ability to visualise and paraphrase successfully. Bell (1991) purports that the ability to visualise relies heavily on the skill of the reader to create an image of the whole of the details rather than separate parts. Student A and B's inability to read the text fluently would impede their ability to visualise the whole text, resulting in isolated images if any at all. Student C's success can be attributed to her ability to successfully create a mental picture and check her paraphrase against this mental image to verify for accuracy. When questioned on the strategies she was applying to her reading task Student C explained that by visualising what she had read before attempting the paraphrase helped her to know where the main idea was in the text, therefore assisting her to paraphrase more accurately. Student C's results indicate a 33% increase in paraphrasing ability and a 10% increase in comprehension rate, therefore supporting Fisk and Hurst (2003) that a students ability to find the main idea when paraphrasing improves comprehension. Furthermore, the overall results from the Intervention Group show paraphrasing ability the greatest area of growth, with an average increase of 31%. Using the simple strategy of the RAP Acronym provided the students with a visual mnemonic cue to paraphrase whilst reading, therefore "triggering an inner dialogue of when to apply the skill" (Katims, et al, 1997 p. 118). It is the tenets of this study that visualising and paraphrasing are very powerful tools, therefore supporting findings by Sorrell (1996) that a combination of two instructional strategies is an effective approach to improving comprehension rates.

Munro (2004) also found that for students to be successful with comprehension, they need to learn the cognitive strategies as internalised self instructional statements. This finding is evident in the results of Student C from the Intervention Group as the strategy was undertaken with very little teacher prompting needed to engage the strategy. Student C's results indicate that the strategy is beginning to become automatic as she reads a text. It would be interesting to follow up this students progress of the strategy used when reading texts other than non fiction.

This study's purpose to increase comprehension through explicit teaching of paraphrasing, visualisation and synonyms has found mixed success. While the teaching of paraphrasing was the stand out success, the usage of synonyms and an increased vocabulary was viewed across other curriculum areas.

Though the increase in overall comprehension scores was slight, turning attention to other components of comprehension may well provide further growth in skill development in this area.

Implications

This study supports the tenet that intense small group instruction does assist students to progress more than whole class focus teaching, with the average increase in performance by the Intervention Group higher than that of the other two groups. This study supports explicit teaching of cognitive strategies such as paraphrasing contributes to improved comprehension. This need for teachers to invest time in these cognitive strategies, frequently modelling to their students as to how these strategies can be applied in reading practice whilst providing opportunities to apply the strategy independently are critical issues. When these elements are combined Reading Comprehension will improve in all students, making them better equipped to engage with the text they are reading far beyond the word decoding level.

Limitations

One limitation of the study was the short and intense period of instruction. Subjects in the Intervention group experience multiple issues with learning therefore these issues impacted on the ability to take opportunity of the limited instructional time. Significant Increased performance for a multi dimensional skill such as comprehension given such limited time can not fully develop in a eight session study. It can indicate areas of growth for further study to the classroom teacher who can then provide the appropriate intervention required.

Due to other factors beyond control (eg: school closure days and subject illness) all of the appropriate post testing was unable to be carried out immediately following the conclusion of the intervention teaching. The results of this testing are delayed results and could be considered more as checking results to monitor progress for a period after the intervention has been completed. It would have been helpful to measure immediate skill development and compare this against the post testing results achieved one week later.

Non Fiction texts formed the main delivery as the subjects were immersed in a science based unit, requiring students to engage in non fiction texts as a main base of research. It would be have been interesting to use a wider range of texts, including fiction texts to compare how the subjects applied the strategies to text other than non fiction.

Future Research

Such explicit instruction of cognitive strategies for comprehension needs to continue to ensure further growth in this area. The small gains of the study can be used as a springboard to form part of the next part of the intervention for both small group and whole group instruction. Continued explicit teaching of visualising and paraphrasing with re testing over a period time would be beneficial to monitor student performance. A future approach should include focussing only on one dimension of comprehension at a time, such as literal comprehension and working through the subsequent levels as students show a readiness. This approach would still encompass the paraphrasing and visualising strategy, but at each level of comprehension over an extended period of time.

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Appendices

Appendix 1: Teaching Sequence: Intervention Group

Appendix 2: Teaching Sequence: Whole Class

Appendix 3: Synonym Support Activities

Appendix 4: Text Extracts

Appendix 5: Comprehension Scoring Sheet

Appendix 6: Paraphrasing Scoring Sheet

Appendix 7: Munro (2005) Synonyms Task.

Appendix 1: Teaching Sequence: Intervention Group.

Session Outline: adapted from Munro's teaching sequence on Comprehension – Paraphrasing (2005) and Munro's Teaching Vocabulary (2005).

Session One: Synonyms

Activity	Task Description	Time
Clarify Terms	Teacher re visits the term Synonym – a synonym is a word that means the same as another word	5 mins
	Synonyms help us to say things in another way	
	without changing the meaning.	
	Eg: thin – skinny or slim	
	Dog – hound or puppy	
	Slide – slip or skid	
	Talk – speak, chat, say	
	Discuss how each of the suggested synonyms do	
	not mean something different from the target word.	
Text Reading (Shared	Look at list of the following words; happy, close,	7 mins
Strategy)	dish, strong, hard, cry.	
	Ask the students to suggest synonyms for the	
	words. If they are having difficulty show them the	
	following list and ask them to select synonyms from	
	there: glad, shut, plate, powerful, difficult, weep.	
Reading Target Words	Matching game of synonyms. Read through target	10 mins
and Applying the	words with students Ask students match words on	
Strategy	cards with others that mean the same.	
Sharing Our Words	Students share words they grouped together. Do	5 mins
	these share the same meaning?	
Reflection	What have I learnt today? Students record in	5 mins
	book.	

Session Two: Revision of synonyms and Introduction of Visualising

Activity	Task Description	Time
Text Retelling	What did we learn last session? (students will define the term synonym)	3-5 mins
Synonyms	Students give examples of synonyms they know or learnt yesterday	5 mins
Text Reading (Shared Reading Strategy)	We have been learning how to use synonyms to change words and keep the same meaning. We can do this when we are reading to help us understand what we are reading. Write a sentence taken from pre test text <i>The Game of Soccer</i> . Eg: Soccer is the most popular football game in the world today. Ask the students to describe the picture they get in their head after they have red the sentence. Above the following words place 2 cards – one with a synonym for the word and one with a word that is not a synonym. (popular, football game) Ask target students to choose the word they think is the correct synonym and say why. Re read the sentence with the correct synonym and ask them to describe the picture they have in their heads. Is it the same as the first picture? Why or why not.	10 mins
Applying the strategy Suggesting Synonyms	Provide students with another sentence from the pre test text <i>The Game of Soccer</i> . Eg: <i>The goalkeepers</i> are the only players who are permitted	5 mins

	to t <u>ouch</u> the ball with their hands. Read together and ask students to visualise. Ask them to suggest synonyms for the underlined words in the sentence on their own.	
Reflecting	Students share their synonyms and discuss. Ask students to describe the picture they have in their headis it the same? If the picture os the same that means we have used the correct synonyms and haven't changed the message of the text. What have I learnt today?	5 mins

Session Three: Visualising and using synonyms.

Activity	Task Description	Time
Text Retelling	Re visit sentences from previous session showing original sentence. How did we change this sentence using synonyms? Revise the technique of visualising when we read to give us a picture in our head. How did this help us with our synonyms?	3-5 mins
Synonyms	Give students a fill the gaps where they complete a sentence by writing in a word from the box that means the same thing as the word in brackets. Encourage students to use the visualising technique when the read the sentence first and then again when they have inserted the synonym and compare their picture. Is it the same or different?	5 mins
Text Reading (Shared Reading Strategy)	We have been learning how to use synonyms to change words and keep the same meaning. We can do this when we are reading to help us understand what we are reading. Read the first paragraph from the text titled <i>Different Solids</i> . Colour each sentence a different colour to separate ideas. Re read the first sentence with students <i>There are many kinds of Solids</i> . Ask them to select the key word/term in the text we would change. Ask them to suggest synonyms for words in the sentence and record them.	7 mins
Applying the strategy Suggesting Synonyms	Students read next sentence and write down the key words and suggest synonyms for each term. Share what they have done. Repeat for remaining sentences, reminding them to visualise where possible.	10 mins
Reflecting	Share the synonyms students came up with and discuss why they are good/not so good selections. What have you learnt today?	5 mins

Session Four: Using synonyms in a sentence.

Activity	Task Description	Time
Text Retelling	What did we do with the paragraph in the last session? (we changed the key words in the paragraph using synonyms. We also tried to visualise the sentences to check we had used the correct synonyms and had not changed the meaning of the text)	3-5 mins
Synonyms	Students play Synonym Match as a small group.	5 mins
Text Reading (Shared Reading Strategy)	Read second paragraph of text <i>Different Solids</i> . Colour in each separate sentence in a different colour. As a group re read the first sentence of the paragraph and ask the students to visualise and talk about what they can see. Ask them to identify key terms in the sentence and suggest possible synonyms for the words. Say the sentence suing the synonyms and ask "Do we still get the same picture in our mind?"	7 mins
Applying the strategy Suggesting Synonyms	Students read each sentence and suggest synonyms for the key words. They record the key words and write synonyms for the words next to them. They also practice visualisation to check their visual picture – is it the same or different?	10 mins
Reflecting	Students share their sentences and synonyms. Explain to them that by using synonyms when we are reading we can put what we are reading into our own words and this helps us to understand it better. We call this skill paraphrasing. What have we learnt today? Record in your journal.	5 mins

Session Five: Introduction of paraphrasing.

Session Five: Introduction of paraphrasing.					
Activity	Task Description	Time			
Clarify Terms	We have been learning to make a picture in our mind about what we have been reading. We have also been learning how to change words in sentences to other words that mean the same thing. This is called PARAPHRASING. These are two strategies we can use to help us read and understand what we are reading – visualising and paraphrasing.	3-5 mins			
Explain the Strategy	Paraphrasing is when we tell ourselves what we have read. After you have read a sentence you say it to yourself in your own way. You try to change as many words as you can using synonyms so that you are saying it in your own way.	5 mins			
Text Reading (Shared Reading Strategy)	Look at the sentences <i>The most common liquid is water. It fills the world's oceans.</i> Here are two sentences. I am going to show you how we can use paraphrasing. First I read the two sentences and think about the picture I have in my mind. Then I think about the key words and synonyms I can use. Then I tell myself to say it in another way. <i>Water is an everyday liquid. Water is found in places all around the word such as the sea.</i>	5 mins			

	Discuss the picture we have in our mindhave we changed the meaning?	
Applying the strategy Suggesting Synonyms	Now it is your turn. Here is a sentence I want you to read. You need to tell yourself what you are going to do (I will read and visualise then I will find the key words change them for synonyms and then say it in my own way) Students read <i>Different Liquids</i> and cue themselves to visualise, use synonyms and then paraphrase)	10 mins
Reflecting	Students share their paraphrasing and write what they think paraphrasing means.	5 mins

Session Six: Paraphrasing using RAP.

Activity	Task Description	Time
Clarify Terms	Tell me in your own words what paraphrasing is.	3-5 mins
	What are the steps we use when we paraphrase?	
	We can also use a strategy called RAP.	
Explain the Strategy	Write up RAP on the board. Describe each stage:	5 mins
	Read the text, Ask yourself what are the key words	
	and main ideas and P ut the text in your own words	
	using synonyms.	
Text Reading (Shared	Using text Different Gases., read a sentence.	8 mins
Reading Strategy)	Model using the Rap strategy with the sentence.	
	Record the paraphrase down.	
	Repeat for next sentence.	
Applying the strategy	Now it is your turn. Here is a sentence I want you	10 mins
Suggesting Synonyms	to read. You need to tell yourself what you are	
	going to do and use the RAP strategy to help you.	
	Continue using the text from <i>Different Gases</i> . Ask	
	students to record the paraphrase onto their page.	
Reflecting	Students share their paraphrasing.	5 mins
	Students write the steps they need to follow when	
	they are paraphrasing.	

Session Seven: Using RAP to paraphrase

Activity	Task Description	Time
Clarify Terms	Revise the strategy of RAP. How does it help us paraphrase?	3-5 mins
Explain the Strategy	Today we are going to use RAP to paraphrase a paragraph but at the end of the paragraph we are going to answer some questions about it.	5 mins
Text Reading	Ask students to read the text silently to themself first.	1 mins
Applying the strategy Suggesting Synonyms	Tell the students they are going to read the text again using RAP and telling themselves in their mind what they will do during each step. Students do not record the paraphrase but answer the comprehension questions about the text at the end in their journal.	10 mins
Reflecting	Students share their answers to the questions Students reflect about how the RAP strategy helps them to understand what they are reading.	5 mins

Session Eight and Nine: RAP and paraphrasing for comprehension

Activity	Task Description	Time
Clarify Terms	What did we say about the RAP strategy and how it helps us to comprehend?	3-5 mins
Explain the Strategy	Today we are going to practice using the RAP strategy while we read a book. At the end of the book we are going to think about our paraphrasing and what we have read to answer some questions about the text.	5 mins
Text Reading (Shared Reading Strategy)	Students read text independently as a guided reading session. They paraphrase each sentence to themselves while they are reading.	8 mins
Applying the strategy Suggesting Synonyms	Students think about what they have read and what they told themselves in their own words about the text. They then use this information to answer comprehension questions.	10 mins
Reflecting	Students the answers to their questions.	5 mins

Appendix 2: Teaching Sequence – Whole Class.

Session 1	Session 2	Session 3	Session 4
Synonyms: words that	Synonyms	Synonyms	Synonyms: pulling
share the same	Matching words that are	Visualising	words out of a text and
meaning as others.	synonyms	Experiment safety rules	matching with
			synonyms.
Ask students to define the word synonym. A word that shares the same meaning as another word. Provide the students with some examples eg: team and individual terms used in previous inquiry unit. Provide some other examples eg: quiet (silent, peaceful, soft, hushed) run (jog, dash, sprint) smelly (pong, stink, stinky, stinking) Synonyms should not change the meaning of the word we are using.	Revise what a synonym is and ask students to provide examples. Blu tack the following words onto the whiteboard and ask students to discuss with a partner which words belong together and why. Smart, clever, noisy, loud, last, end, hot, burning, horrible, awful. Come back as a class and share ideas and suggestions. Invite students to come and group the words.	Warm Up: Students come up with synonyms for the following words; Tired (sleepy, exhausted, drowsy) easy (simple, not hard, no bother), afraid (frightened, nervous, fear, scared). Read to students Scientific Experiment Safety. Model reading one sentence at a time and talking about the picture I get in my head when I read the sentence. Continue with each sentence, inviting students to share the picture they have in their mind. Why might my picture be different to your picture?	Re read text Scientific Experiment Safety. Select three sentences and read each one separately while talking about the picture I have in my head. Circle key words in the sentence and change using synonyms. Re read the sentence using synonyms and tells the students the picture I have in my mind Is this picture similar or the same to the one I got with the first sentence? If it is then I know I have used correct synonyms because the meaning has not changed. Choose a sentence and hand out to each individual student. Ask them to write synonyms for the key
			words and say the sentence in another
			way. Did you get the
			same picture?
			same picture?

Session 5	Session 6	Session 7	Session 8
Paraphrasing:	Paraphrasing:	RAP: Strategy for	RAP: Strategy for
Saying what you have	Saying what you have	paraphrasing	paraphrasing
read in your own way.	read in your own way.		Recording paraphrase
			in a full sentence.
Over the last week	Revise what	Introduce the etretogy	Revisit the RAP
we have been	paraphrasing is. Model	Introduce the strategy RAP for paraphrasing –	
learning how to use	some more	Read the text, Ask	strategy. Teacher models using the
synonyms when we	paraphrases of	yourself what are the	strategy for two
are reading to help	sentences you are	main ideas and Put the	sentences then
us say what we	reading.	main idea in your own	students have a go.
have read in our	Now it is your turn.	words using synonyms.	They record in their
own words. We	Display some	Model using this strategy	English books.
have also been	sentences on strips	by reading a paragraph.	g
practising to make a	and read to the class.	Record my paraphrasing	
picture in our mind	Ask them to visualise,	as a full sentence.	
about what we have	select key words to		
read – this is called	change using		
visualising. When	synonyms and then		
we use synonyms to	write down the		
change the words in	sentence they come up		
a sentence to say it	with. Ask students to		
in our own way we	share their paraphrase		
call this	– have we retained the		
paraphrasing. Read a sentence	same picture and the		
and then model	meaning of the text?		
using synonyms to	Repeat for two – three		
say it in my own	other sentences.		
way. Ask – did you	outer seriterioes.		
still get the same			
picture in your			
mind? Is the			
message of the text			
still the same?			
Repeat for some			
more sentences			
modelling			
paraphrasing			
strategy.			

Appendix 3: Synonym Support Activities

Brennan, M., Giordimaina, K., Roberts, B., & Watt, K. (1997) Section 3: Similarities & Differences Learning Words 1: A Language Program. Catholic Education Office.

Matchin Small Happy Close Dish Angry Strong Hard Cry	di lit gl w sl	atch the sy owerful nad ifficult itle lad reep hut late	nonyms fron	n the follo	owing list.	
Fill the	Gap 1					
Large		loud	besid	de	road	
Quick		above	sick		closed	
1. T	he building is		_·	5.	The door sla	mmed
	·	(big)			(;	shut)
2. N	ly friend lives	down the	(street)	6. The b	aby is((unwell)
	can run really ead.	(fast)		7. The b	oy hit the ball	my
4. T	he music was	very(noisy)		8. I sit _	my (next to	
Memory Game 1 – The following table was made into flashcards.						

Wet	soaked
Bright	shiny
Scared	frightened
Under	below
Nice	kind

Appendix 4: Text Extracts

The following is an example of text used during teaching. The texts used were related to the inquiry study being undertaken by the students used in the study.

Different Solids

There are many kinds of solids. Some of the most common kinds are plastic, glass and wood. Solids have different properties. This means that some solids are heavy, while others are light. Some solids are hard and others are soft.

Metals are solids that are hard, heavy and shiny. Glass is hard and heavy too. It is also see-through. Glass is brittle, which means it can break easily. Plastic and wood are lighter than metal or glass. Plastic is flexible, which means it bends. Rubber bends even more than plastic.

Taken from: Morgan, B. (2003). *Elementary Physics: Solids, Liquids and Gases.* London: Brown Reference Group.

Appendix 5: Comprehension Scoring Sheet.

Analysis of Reading Comprehension

Students read text and asked 5 comprehension questions after reading using the paraphrasing strategy. Each questions was scored individually to make a total maximum of points to be scored 4 which would equate to 20%. The table below outlines these scores below;

	0 points	1 point	2 points	3 points	4 points
	(0%)	(5%)	(10%)	(15%)	(20%)
Criteria	No attempt at	Attempt	One piece of	Two pieces	All correct
	question.	made but	correct	of correct	information
		incorrect	information	information	given.
			given	given.	

Question	Question Type	Answer for maximum points to be scored.	Students Response	Maximum points to be scored (20 in total = 100%)	Points scored
How many players in a game of soccer?	Literal	2 teams of 11 making 22 players		4	
Where should the ball go for a point to be scored?	Literal	Cross the goal line, under the cross bar and between the posts in the goal.		4	
Which player is allowed to catch the ball?	Literal	The goalkeeper.		4	
How do you think a good goalkeeper can help his team?	Inferential	By stopping as many goals as he can by catching the ball from the opponents.		4	
Explain why it is important for all members of a team to cooperate?	Evaluative	So that they play to their best, can be successful, win the game.		4	

Appendix 6: Paraphrasing Scoring Sheet

Paraphrasing Pre Test

Name:	Group:	Gender:

Sentence from Text	Maximum	Students paraphrase	Points
Comence nom rext	Possible Points	response	Scored
Soccer is the most	4	·	
popular football game in			
the world today.	0		
It is played by two teams	2		
each consisting of eleven players.			
There is a goal and a goal	3		
line at each end of soccer	Ü		
field.			
There are sidelines, which	4		
go along both sides of the			
field to meet the goal lines			
and the ball must be kept within this area.			
A centre line divides the	2		
field into two halves and	2		
each team must defend its			
own half.			
At the same time the	1		
players try to score in the			
other teams goal.			
One point is given for	1		
each goal scored.	2		
For the point to be given the whole ball has to	3		
cross the goal line under			
the cross bar and			
between the posts.			
The ball is round and it is	2		
usually made of leather.			
It can be kicked or played	3		
at with the head the legs			
or the chest. Most players pass the ball	1		
up and down the field to	1		
each other with their feet.			
The goal keepers are the	1		
only players who are			
permitted to touch the ball			
with their hands.	_		
A game of soccer lasts for	1		
ninety minutes.			
There is a five minute break at half time when	2		
the teams change ends.			
		ne number of main ideas in t	<u>. </u>

NOTE: Maximum number of points relates to the number of main ideas in the sentence.

Appendix 7: Synonyms Task Munro, J. (2005) Synonyms Task.

Synonyms task: Student form

John Munro

Student name: _	Grade:	Date:

Tar	rget word	Possible correct responses	Child's response
1.	small	tiny, little, wee, mini, miniature, short, shrimp, slight, stunted, teensy, minor, trifling	
2.	fast	quick, rapid, brisk, snappy, speedy, hasty, swift	
3.	old	aged, ancient, elderly, experienced, geriatric, senior, veteran, outdated, stale	
4.	leave	go, clear out, scram, stop	
5.	car	vehicle, automobile, sedan	
6.	shoe	boot, slipper, runners, sneaker	
7.	child	boy, girl, infant, tot, babyyoungster, brat,	
		kid, kiddie, toddler	
8.	fat	rotund, plump, overweight, burly, corpulent,	
		obese, oversize, paunchy, portly, stout,	
		blubbery, bulk, lard	
9.	walk	stroll, amble, hike, march, pathway, amble,	
		tramp	
10.	cat	kitten, moggy, puss, leopard, lion, tabby	
11.	fatigued	tired, all in, beat, exhausted, weary, worn-out,	
		zonked, sapped	
12.	boat	ship, types of boats	
13.	clean	neat, tidy, clear, flawless, trim, sparkling	
14.	sick	ill, unhealthy, unwell, weak, queasy, diseased,	
15.	tiger	cat cheetah, cougar, jaguar, leopard, lion,	
		panther	
16.	engine	motor machine, apparatus, appliance, gadget	
17.	ignore	disregard, avoid, cut, neglect, omit, overlook,	

		reject
18.	precious	expensive, dear, prized, treasured, valued,
		invaluable, prized
19.	angry	mad, irate, crazy, cross, out/enraged, fiery,
		fuming, furious, storming
20.	hit	slap, strike, punch, bat, smack, smash, sock,
		swipe, success, achievement, triumph
21.	give	donate, provide, contribute, dole out
22.	stop	prevent, bar, impede, halt, end, block, close,
		finish, terminate, rest, still
23.	cage	pen, cell, prison, enclosure, coop, cavity, chest
24.	adolescent	teenager, immature, juvenile, youthful, minor
25.	station	terminus, headquarters, stop,
		base, depot, terminal
26.	release	free, liberate, acquit, let go
27.	flow	run, move, drift, ooze, stream, abound,
		progress
28.	liberate	free, let out, loosen, release
29.	a building	a construction, edifice, home, house, dwelling,
		structure

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