Teaching year 2 students the strategy of visualisation through the use of R.I.D.E.R improves comprehension of fictional texts.

Abstract

As educators we understand the importance of bringing meaning to a students' learning experience. Teachers must equip their student's with the building blocks they require to gain knowledge and understanding. Many students are successful when learning to read, they develop sight word recognition and strategies to help them decode. However, reading comprehension continues to be a problem for many students. They are able to read to the end of the page without making an error but are unable to retain information and comprehend the information they just read.

This study examined the effect of visualisation instruction through the use of R.I.D.E.R for grade 2 students, two of which had been discontinued on Reading Recovery and continued to display reading comprehension difficulties. One student had an ESL background.

Three students, who were underperforming on comprehension, were taught to visualise after reading, using the R.I.D.E.R strategy independently and aloud in narrative texts. The instruction was conducted over 11 sessions for approximately 30 minutes.

The students taught to visualise achieved improved comprehension outcomes in all post-tests.

The implications of the outcome for instruction were examined. These results have direct implications for teaching students who have comprehension difficulties, especially students who continue to face comprehension difficulties post Reading Recovery. Further implications include how the reading pathways for students post reading recovery are monitored.

The results supported the prediction to the extent that students who were good at visualising were successful. Students from an ESL background may need additional intervention and support.

Introduction

Many young students will seek out opportunities to listen to stories, explore books and talk about the books being read to them. Young students in particular become immersed in the world of fantasy and imagination that books and stories provide. For most children, the process of learning to read begins long before they start school. It is quite normal for children to be read stories at bedtime and for them to be given books to own and explore for themselves. As a result, many children discover and learn for themselves concepts about reading and print. Learning to read for some students will be an enjoyable and exhilarating experience. Most will achieve success and recognise the benefits and reasons for reading. As students become older, their reason for reading changes as do the types of texts they read. They begin to read for meaning and to gain meaningful information for a range of purposes. (Westwood, 2003)

While learning to read can be a magical time for most, some students find it a difficult process. It can be a long and tough uphill battle that for most seems unrewarding. Reading involves many aspects and one or more of these aspects can be challenging for some students. Books become increasing in length and ideas, they must recode letters into sounds, recall these sounds quick enough for the information to make sense and then they must then try and understand what they are reading-they must comprehend what they are reading (Nelson, 2005). The battle does not just end at the full stop. To read with understanding, readers must use the smooth co-ordination of higher order cognitive processes (thinking, analysing, connection, reflecting) and lower order processes (word recognition, decoding) interchangeably (Pressley, 1998; cited in Westwood, 2003).

Reading problems are one of the most common reasons students are referred to special education services (Miller, 1993; cited in Hagaman, Luschen & Reid, 2006). In most cases, early intervention in reading focuses mainly on reading skills such as, decoding. Of course, these fundamental skills allow the student to read accurately and fluently, however with much emphasis put on fluency, reading comprehension is often overlooked. Hagaman et al (2006) states that reading fluency is necessary for comprehension, students who are able to decode and recognise words effortlessly are able to devote more of their cognitive resources to reading comprehension. It appears that for students that have been on an early reading intervention program, once accuracy and fluency in place, comprehension strategies should become a prime focus after initial intervention. As Westwood (2003) states, understanding information in the text is of course the whole purpose of reading.

The most important thing about reading is comprehension, it is the reason we read. Reading comprehension has been described as a complex intellectual process involving a number of abilities (Rubin 2000; cited in Westwood, 2003). A message within a text cannot be passively absorbed by the reader, rather comprehending a text requires sustained cognitive effort on the reader's part. Readers must use existing knowledge to filter, interpret, organise, reflect upon and to establish relationships with the new gained information. Strategic readers use metacognition to monitor their own level of understanding as they read a text. Pressley (1998) as cited in Westwood (2003) argues that the goal of teaching should be to develop fully self-regulated readers who are skilled and strategic.

Reading comprehension is considered to occur at four levels of complexity. Smith (1969) as cited in Westwood (2003) states, like many others, that these levels are literal level, inferential level, critical level and creative level. Students face challenges at each of these levels, however continue to find the complex levels difficult. Some identified reasons why students demonstrate poor comprehension includes their failure to understand key words and sentences, how sentences fit together and how the information fits together in a meaningful way (Parker,

Hasbrouck and Denton, 2002). Westwood (2003) uses the work of Torgesen (2000) to highlight that a reader's understanding of a test is influenced by a broad range of factors, including his or her motivation, interest, vocabulary, general knowledge, knowledge of the particular subject, word identification skills, reasoning ability, use of effective strategies to identify main ideas and supporting detail, and an appreciation of text structure. Westwood (2003) suggests that students who fail to make these connections and who don't understand what they are reading are likely to turn away from reading as it provides them with no satisfaction. It is readers who are understand what they are reading that can more easily go beyond the given information and predict, infer and make further connections.

One may to improve these students comprehension skills is by teaching them effective comprehension strategies. Visualisation has been widely identified as one of a number of strategies which can be used to improve students' comprehension. Visualisation involves using mental imagery to represent ideas. The images can be of a variety of everyday objects, events and personal images. Imagery assists us to deal with a large amount of information, it provides a context, a way of linking or scaffolds ideas. More importantly, it helps us retain ideas in our short term memories (Munro, date unknown). Visualisation, whether developed mentally or through the use of graphic organisers and pictures, will assist students to better comprehend and recall. Woolley (2010) uses the work of Romeo (2002) to reinforce the assumption that students' use of mental imagery links read text information to the reader's own background experiences and creates links to therefore enhance comprehension of the text. Research proves that students who create visual images before, during and/or after reading enhance their comprehension (Guerrero, 2003).

It is stated that students have a better understanding of technical devices or natural phenomena when they learn from text and pictures rather than from text alone (Mayer, 2007; cited in Kurschner & Schnotz, 2007). Tools that students can relate to and use would be beneficial to use in a regular classroom (Guerrero, 2003). One well known, young student friendly tool to assist in teaching visualisation is R.I.D.E.R. Use of the RIDER strategy strengthens the students' ability to monitor their comprehension and to recall information. Students can be taught to apply this strategy either when listening to texts or when reading, independently or when guided.

The visual imagery strategy R.I.D.E.R was designed to facilitate reading comprehension (Clark, Deschler, Schumaker, Alley, Warner, 1984). It can just as easily be applied to the area of listening comprehension. This student friendly visualisation tool is an acronym that reminds the user of the process that is required for them to take when learning this comprehending strategy. The process is outlined in the table to the right.

Letter	Meaning
R	Read
I	Image
D	Draw/Describe
E	Evaluate
R	Repeat

The present investigation aims to examine the effect of teaching the R.I.D.E.R strategy to a small group of students in grade 2, with a hope that they will begin to independently use visualisation when reading texts. McKeon, Beck & Blake (2009) as cited in Woolley (2010) state that the expectation of teaching students the strategy of visualisation is that when they read independently they should focus on meaning and automatically visualise story content throughout the reading process. This will assist students to understand what they are reading and therefore improve their comprehending strategies. These students are at present able to decode at an appropriate level for the time of year this study was taken, but do not display a good understanding of texts read and they experience difficulties in completing comprehension tasks.

At present, the students do not appear to using effective strategies to assist in their comprehension, often continuing reading even when they are not understanding or gaining meaning from the text. The hypothesis is that teaching year 2 students the strategy of visualisation through the use of R.I.D.E.R improves comprehension of fictional texts.

Method

Design:

The study uses a case study OXO design. The study uses a naturalistic design in the context of a 'real' classroom, in which the gain of comprehension of fictional texts through the use of the visualisation strategy is monitored for grade 2 students who have general comprehension difficulties. The series of lessons used in this study are based on the Collin's Model of Teaching and Learning, a model that considers the learning process of students who have difficulties and outlines how the teacher gradually reduces scaffolding and the responsibility of the student increases (Collins, A., Brown, J.S. & Newman, S.E., 1989; cited in Munro, 2010).

Participants:

The participants selected for this study all attend the same Primary School which is medium in size and is located in a middle to high socio-economic area. They are in the same grade 1/2 class, which is somewhat multi-cultural. The particular students selected for this study are grade 2 students who have a history of mild reading difficulties. One student selected is of an ESL background and two out of the three students took part in our Reading Recovery program while they while in grade 1. Age for these students were taken on the date of the pre-test. Students were selected based on their scores on the PAT-R testing which took place for all grade 2 students in the middle of the school year. Students were required to read and complete the test individually within 40 minutes. On the PAT-R test the students scored a raw score of 19 or below, which was the lowest of the grade 2 students that were tested in the middle of the year. The classroom teacher identified them as students who would benefit from exposure to a new comprehension strategy that would assist them to improve their comprehending strategies while reading independently. They are able to accurately decode when reading, but experience difficulties in completing comprehension tasks using information gained through reading. Refer to Table 1 for personal characteristics of each student selected for this study. (Complete Table: Appendix A)

Table 1: Participant Characteristics

Name	Groups: Control = 0 Teaching=1	Age in months	Gender 0=Male 1= Female	Time at school in months	ESL No=0 Yes=1	LNSLN funding 0=N/A 1=SLD 2=ID 3=Asp	Earlier Intervention No=0 RR=1 Bridges=2 ERIK=3…	EMA No=0 Yes=1
A	1	93	0	30	0	0	0	0
B	1	94	0	30	0	0	1	0
C	1	96	1	30	1	0	1	0

Materials:

For this study, the following materials were used for Pre and Post testing data collection.

- **John Munro's Visualisation Task**- Students independently read a series of sentences, visualised and wrote a brief description of their mental image. This test was scored using John Munro's accompanying scoring system which provides a raw score.

- **ACER: PAT-R (Progressive Achievement Tests in Reading) comprehension test**- Students were tested on booklet 2. Student independently read and complete test within 40 minutes. This test was scored using the accompanying standardised scoring that provides a raw score, scale score, stanine and percentile rate.

Other Materials used:

Series of Lessons

Each of the lessons were designed and structured to be used in lower to middle primary school classroom. The lessons can be adapted by altering the choice of sentences and texts. Sentences used in this study can be found on the lessons. (See Appendix B, lessons 2-4) The lessons were designed to be taught within a normal classroom setting needing approximately 20-40 minutes for each lesson. They can be taught within the reading block teacher focus group for small groups or could be taught as a whole class during a reading block. (See Appendix B) Texts used in the lesson sequence, lessons 5-9 were selected to be easy levels for the students, to allow the students to learn a new skill. When students were using R.I.D.E.R independently, texts were selected at each student's independent levels.

R.I.D.E.R cue cards

Each lesson used the school's adapted R.I.D.E.R cue cards to complement outcomes. (See Appendix C) These were also put on display inside the classroom for students to continually refer to during reading activities.

R.I.D.E.R bookmarks

During lessons 10-11, students were encouraged to independently use their skills learnt using R.I.D.E.R while reading. Each student was provided with a bookmark that provided cues from them. (See Appendix D)

Table 2 outlines the progression of the teaching sequence used in this study.

Table 2: Progression of Teaching Sequence

Lesson Number in Sequence	Outcome of Lessons
1-2	Introduction of R.I.D.E.R and picturing in our minds
3	Review of R.I.D.E.R and drawing our mind pictures of simple sentences
4	Review of R.I.D.E.R and drawing our mind pictures of complex sentences
5-7	R.I.D.E.R strategy with a short story (sentence by sentence)
8-9	R.I.D.E.R strategy with a short story (page by page)
10-11	Independent use of R.I.D.E.R strategy

Procedure:

In pre-testing for this study students were assessed using PAT-R (Progressive Achievement Tests in Reading), more specially, the progressive achievement comprehension test was used. PAT-R (Anderson, Stephanou & Urbach, 2008), includes assessment of comprehension skills.

> The PAT Reading Fourth Edition is a thoroughly researched and normed test for measuring and tracking student achievement in reading comprehension, word knowledge and spelling. It provides teachers with objective information for setting realistic learning goals and planning effective programs.

> The content of the tests has been updated to reflect the variety of text and format types that students encounter, current language use, technological advances and the use of testing for in-depth diagnosis and intervention.

> (ACER Press, 2008)

Students were tested on booklet 2, which was identified was an age appropriate level test and was used on all grade 2 students for school trend data collection and assessment purposes. All students sitting this test were gathered together and individually completed the test within a 40 minutes time frame.

The students visualising ability was pre-tested using John Munro's Visualisation Test. The students read, visualised and described pictures (by writing sentences) they made in their minds. This test was administered during a reading block and students continued until the test was complete. The maximum amount of time allocated for this task to be completed was one hour.

For both the pre and post-testing the same language and instructions were used so as to not alter the conditions of the tests conducted. Both pre and post-testing took approximately one hour and 45 minutes per students, however, each test was conducted in isolation so as to not tire students or cause frustration. All data collected was tabled (see Table 3, Appendix A) to display the differences between pre and post-test scores after the explicit teaching of Visualisation through R.I.D.E.R.

Table 3: Pre-testing Results

Name	Groups: Control = 0 Teaching=1	Age in MONTHS	Gender 0=Male 1= Female	Attendance No. of sessions	Vis PRE	PAT-R raw PRE	PAT-R Scale Score PRE
A	1	93	0	12	21/32	13	94.9
B	1	94	0	11	4/32	15	98.7
C	1	96	1	12	14/32	19	107.5

The teaching sessions, which included the pre and post-testing were conducted during the reading block twice a week. Each session formed the teaching focus group during reading for the day and lasted approximately 30 minutes. The teaching sessions was taught by the students own class teacher. All the students were familiar with the structure of a focus group so therefore this study did not create unfamiliar and unique testing and/or teaching conditions. The students were actively engaged in the lesson sequence and the twice weekly lesson replaced a normal teacher focus group rotation during the reading block. The driving force behind the lessons

designed was on developing student's learning, they were encouraged to evaluate their learning throughout the teaching sequence. The learning sequence was designed to promote student independent use of the R.I.D.E.R while reading and to implement it into their future learning experiences. The lesson sequence aimed to promote the automatic use of actions for students to transfer information gained into knowledge (Munro, 2008). (See Appendix A)

Beginning:

To introduce students to the concept of R.I.D.E.R students were read a simple sentence that they then had to visualise (or make a picture in their mind). R.I.D.E.R cue cards were introduced during this session, however emphasis was on students creating their mind pictures. The next step for students was to first, read simple sentences, visualise using the R.I.D.E.R cue cards and then draw. Second, students were provided with complex sentences to repeat the process. By beginning with visualising alone and then slowly introducing the steps of R.I.D.E.R it provided students with an opportunity to build on their knowledge. The language of R.I.D.E.R was consistently referred to throughout the teaching sequence and students were asked to refer to the cue cards throughout the teaching and learning activities.

Middle:

The next lessons in the teaching sequence focused on the whole book, rather than isolated sentences. Here the teacher introduced a new way of recording the student's visualisations of a whole book. The students worked together to recapture the story, at first, sentence by sentence then, page by page, on a grid designed to enable the students to retell the story at the end. (See Appendix B, lessons 5-9) This stage in the teaching sequence enabled the teacher to highlight the E of R.I.D.E.R and evaluate with detail the students descriptions and retelling of the story.

End:

Once students had become familiar with the process of R.I.D.E.R and the teacher was satisfied that the students could use the process independently, the lessons progressed to the students reading independently using only the bookmark as a reference of the R.I.D.E.R strategy. This element of the teaching sequence highlighted the fading of the responsibility of the teacher and the increased responsibility of the student to constantly evaluate their use of R.I.D.E.R and their understanding of the book they were reading (Collins, A., Brown, J.S. & Newman, S.E., 1989; cited in Munro 2010).

The final lessons were used as post-testing opportunities. It was during these sessions that the students recompleted Munro's Visualisation test and PAT-R Comprehension test. The student's ability in using R.I.D.E.R to visualise what they are reading was established to determine whether or not by improving visualising, comprehension is, in turn, improved.
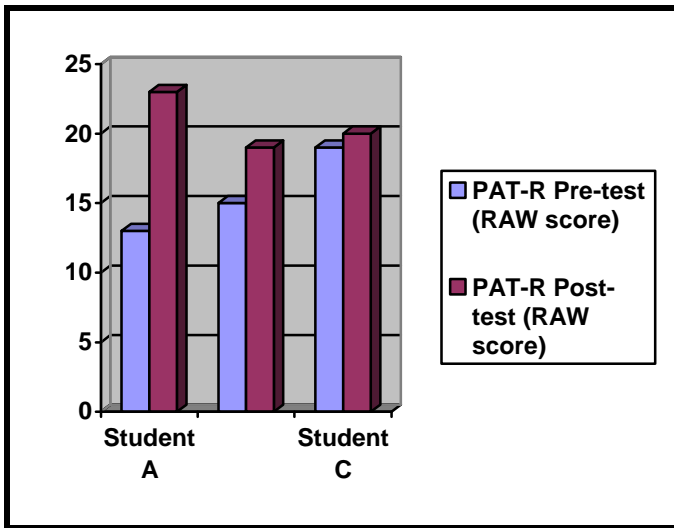
Results

Results indicate support of the hypothesis that teaching year 2 students the strategy of visualisation through the use of R.I.D.E.R improves comprehension of fictional texts. The comprehension and visualisation scores of all students in the teaching group indicate improvement in all areas of testing. (See table 4, 5 & 6, Appendix A)

**Table 4: Visualisation Pre and Post-testing Results**
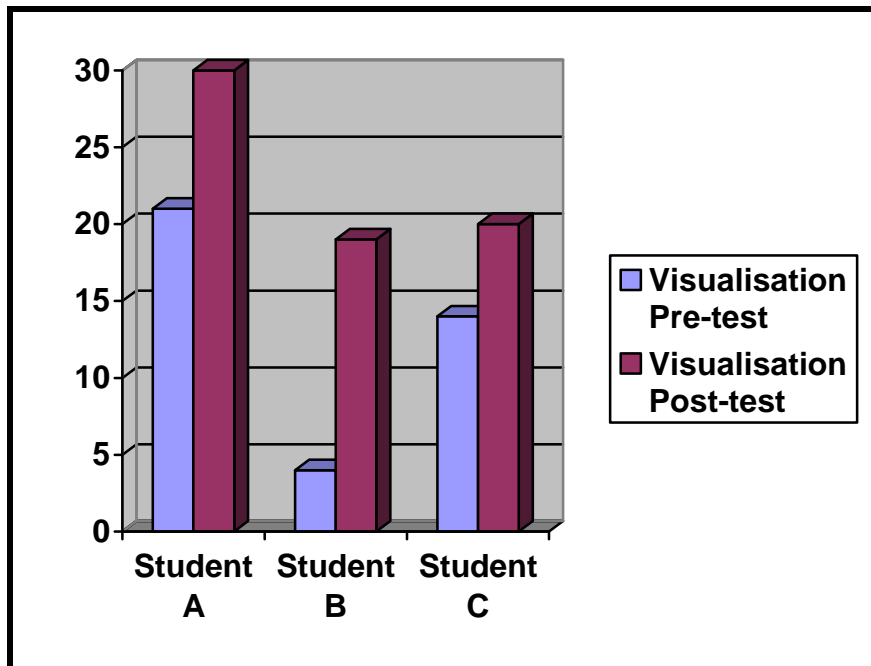
All students post test scores in the visualisation test were greater than their pre test scores. Student B had the biggest improvement overall, he went from being unable to complete about half of the test, to answering and scoring points in a majority of the sentences. Student C achieved the smallest improvement, however still an improvement.

**Table 5: PAT-R RAW score Pre and Post-testing Results**

Table 6: PAT-R SCALE score Pre and Post-testing Results
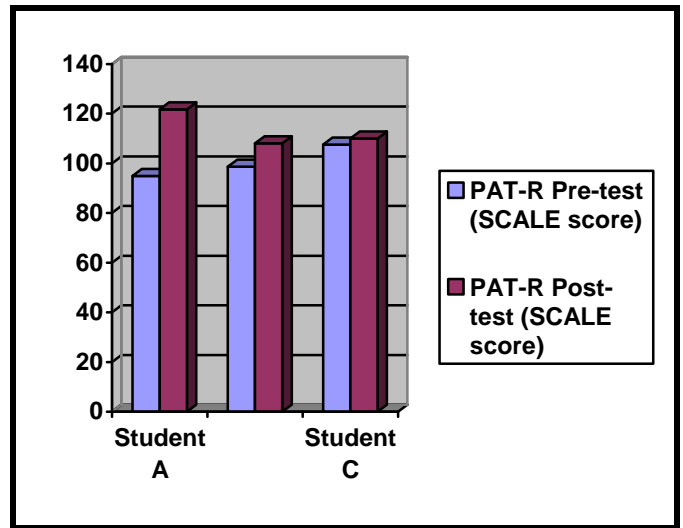
All student achievement a greater score in their post test than the pre test. Whilst all students demonstrated improved scores, student A demonstrated the greatest improvement in his comprehension strategies through the PAT-R comprehension test. His raw score increased from 13 to 23. Student C appeared to make the least amount of improvement, her raw score increased from 19 to 20, answering only one more question correctly from the pre test to the post test.

Overall, students appeared to make good progress in the visualisation post-test. All students also demonstrated some improvements in the PAT-R comprehension test. Considering that these students experience difficulties in comprehension, the improving trend demonstrated in the results was pleasing. The student's results in the teaching group support the prediction of the study by highlighting increases made in all tests after the explicit teaching of Visualisation through the use of the R.I.D.E.R strategy.

Table 7: A Closer look at Student A
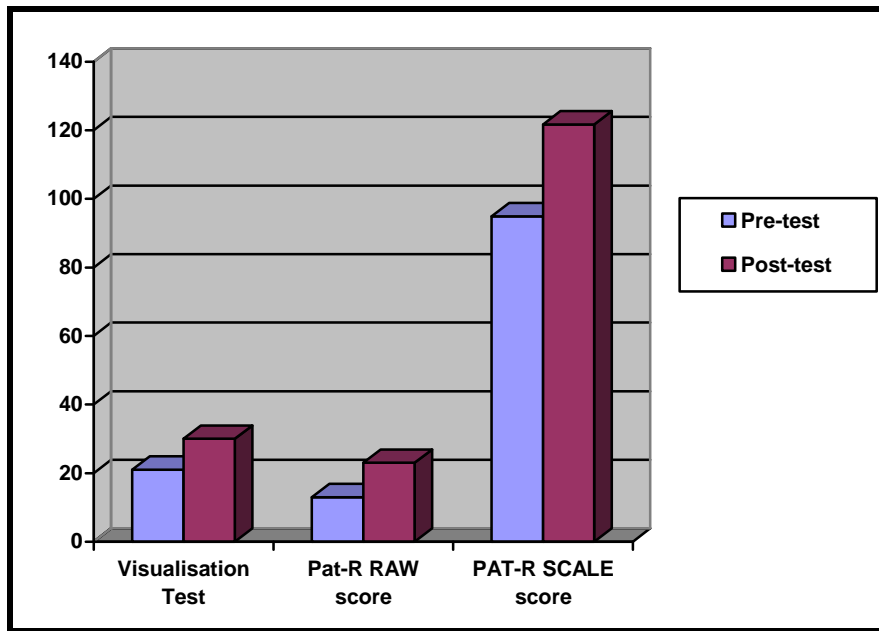
Student A participated in all activities, including pre and post-test with enthusiasm and was very eager to learn. During the teaching sequence, he provided very descriptive examples of his mental pictures and was able to quickly apply it to independent reading. On many observations of student A, he was closing his eyes and really using his self-talk to comprehend what he was reading. Student A demonstrated improvement in his Visualisation skills as is evident in his Visualisation post-test results. Student A was able to complete sentences that had been reworded and/or substituted more that 50% of the words on the sentence using synonyms in most cases. He also showed improvement in his PAT-R comprehension test, improving his raw score results from 13 to 23. (See Appendix A)

Table 8: A Closer look at Student B
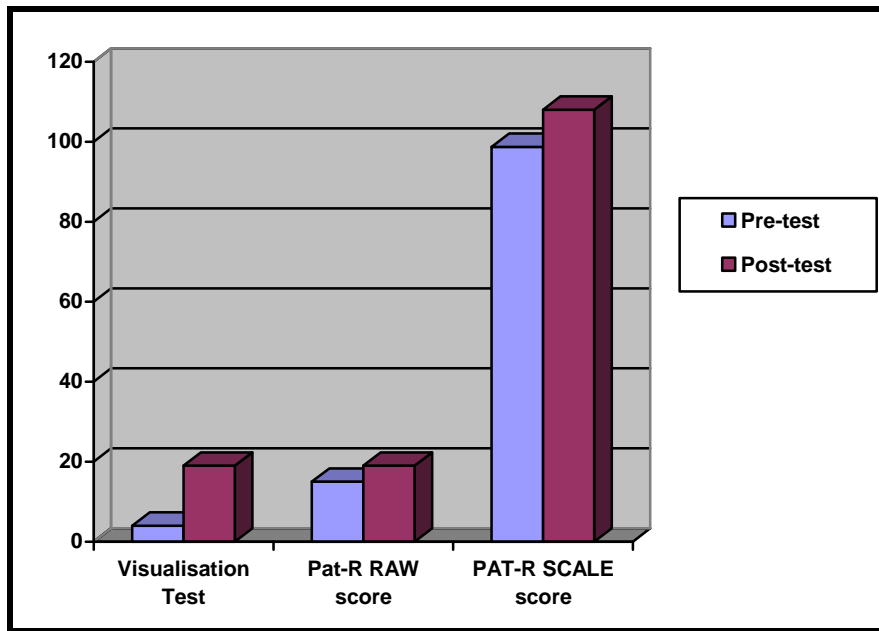
Student B is a very enthusiastic member of the class. However, he can be easily distracted and requires a great deal of monitoring to begin and remain on tasks. During the testing, especially the post-testing of PAT-R student B was eager to quickly finish the tests and see what the rest of the class was doing; he was somewhat distracted with the thought that he might be missing out on something. He made the greatest improvements on the Visualisation test, scoring 4 in the pre-test and 19 in the post-test. (See Appendix A) Whilst Student B demonstrated an improvement in his results on the PAT-R comprehension test, it appeared only to be a slight improvement. He scored a raw score of 15 on the pre-test and 19 on the post-test. His testing papers were rushed and his interest levels were low. Student B was absent for one of the lessons, however, he still demonstrated an improvement in his visualisation and comprehension skills.

Table 9: A Closer look at Student C
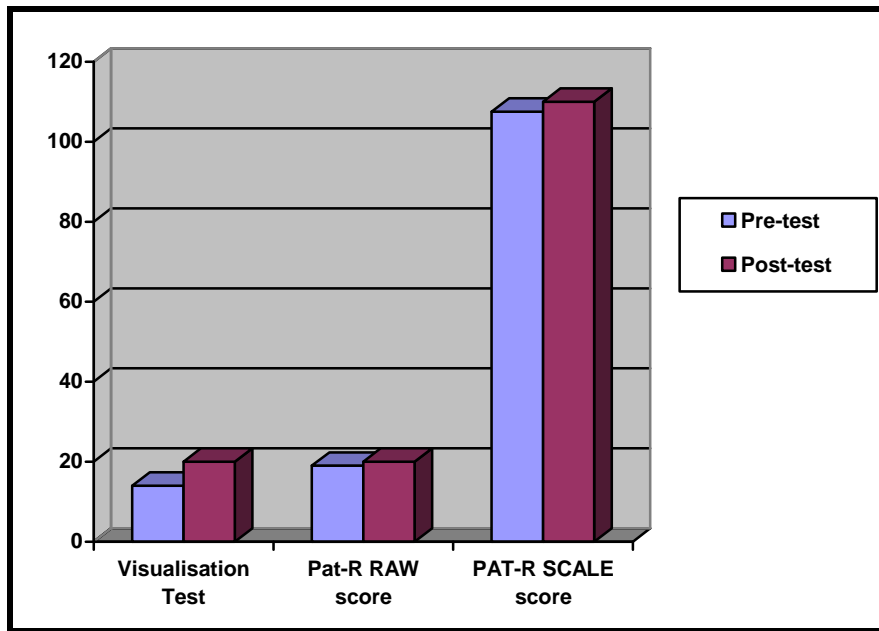
Student C was not a confident participant in the group, she often waited to be invited to speak or waited to hear other students' responses before contributing herself. Student C demonstrated an improvement in the visualisation test, scoring 14 on the pre-test and 20 on the post-test. As she is an ESL student her errors and misunderstandings appeared to be consistent with some common language difficulties she exhibits, she demonstrated some confusion with sentence subjects and sentence meanings. She also used grammatically incorrect forms of words when writing her sentences. She appeared to rely heavily on the sentence that was already written on the test and the words within it. Although there was some improvement on the PAT-R comprehension post-test, it appeared to be only slight. For the PAT-R pre-test, student C scored a raw score of 19 and a post-test score of 20.

Discussion

In reflecting on the results of this study there is support for the hypothesis and the research, which suggests that, teaching students strategies to use when reading improves their comprehension ability. Students improved in the use of the R.I.D.E.R strategy which encouraged visualisation and demonstrated some gains in reading comprehension. This particular intervention would need to take place over an extended period of time to bring about further change however the trends indicated in the results are positive. Students displayed far more confidence in their post testing and were able to describe in their own words the 'picture' they were visualising.

This study and results support the work of (Guerrero, 2003), (Mayer, 2007; cited in Kurschner & Schnotz, 2007), (Whitehead, 1986), (Munro, date unknown) and (Woolley, 2010: cited in Romeo, 2002) who support and highlight the benefits of visualisation and suggest that the explicit teaching of visualisation will improve students' comprehension. Due to the need for explicit teaching, this intervention would need to be taught over an extended period of time for the full benefits and outcomes to evident, especially with those students that are post Reading Recovery and come from an ESL background.

The use of the R.I.D.E.R acronym was beneficial in helping students remember the steps of the strategy. The bookmarks the students were provided with proved to be very worthwhile and helpful for students to have 'on hand' the steps involved. (See Appendix D) When asked what to do to help you read and understand texts, students were confident in responding with R.I.D.E.R. They were able to articulate the steps to follow and students not in the teaching group started to pick up on the strategy as well. It was beneficial to have the R.I.D.E.R cue cards displayed in the classroom for everyone to refer to as well. (See Appendix C) At the conclusion of the teaching sessions when the students were asked to articulate and share what they had learnt, they stated with enthusiasm and confidence the strategy, with some help from the cue cards. Student A and C referred to R.I.D.E.R on an independent activity when summarising their entire learning for the term. Independent from the teaching sessions, the whole class was read a novel, students were encouraged to visualise what was being read to them and they were observed to have responded quite well to this.

Parker et al (2002) noted that many students have poor reading comprehension because they have difficulty understanding key words. This was noticeable with a couple of students in the teaching group, but particular with the ESL student. Her results on the post tests were improved but not by a lot. On the visualisation test, she relied heavily on the existing words in the sentences to describe her mental pictures, reusing a large number of them. She seemed to rearrange the words in the sentence, rather than using her own more simple words. The group may have benefited from discussing the vocabulary in the text prior to the activities, but, not texts that were part of the testing situations. This could also reflect the lack of confidence Student C had in our lessons and Student B's tendency to be off task.

Student A made the greatest improvements overall. He was very good at using his words to describe his mental image, as a general rule, this student has quite a good imagination and enjoyed developing his own pictures. Reflecting upon the data for each student highlighted how the intensive 11 lesson sequence impacted on the student's ability to visualise and comprehend while reading. The results of such a short teaching period emphasizes the impact explicit teaching can have on learning with particular students. As a teacher it highlights the importance of teaching strategies to students that they can independently utilize when required and know which actions to take in order to experience success. This supports the view and work of Pressley (1991) which is used by Westwood (2003) as Pressley argues the goal of teaching

should be to develop fully self-regulated readers who are skilled and strategic. Pressley goes on to highlight the importance of teaching strategies as an essential part of literacy teaching.

The study conducted has direct implications for future teaching. From analysing the results and the obvious engagement and eagerness of the teaching group, it highlights the importance of explicit teaching and allowing students to participate in tasks where they can independently develop and reflect upon the skills and knowledge learnt. There are a number of factors that would need to be addresses if this study was to be repeated or if these particular students were continuing with the lessons. Teacher notes from the sessions indicated that student's ability to describe their mental images became more difficult as the texts became harder and therefore the vocabulary became increasingly difficult. This supports the work of Sorrel (1996) who suggests the need to teach students before, during and after reading strategies.

A further implication for teaching is, possibly as a whole school, there may be good cause to be consistent and continue to develop and expand students' vocabulary. The students in this study became very confident using the new vocabulary involved in comprehension such as; visualisation, comprehension, texts, mental images. The students' consistent use of this language meant they not only understood what they meant, but they were developing and expanding their own word bank. If teachers are consistent in the language they use in their classrooms, it would overtime tune students into what they were going to learn and what strategies they need to employ.

Still a major struggle for students and some adults, particularly in the lower years of schooling, is the importance to understand what they are reading. It can be difficult to articulate the importance of being able to retell and discuss what occurred in the text. It is a constant battle with parents for them to think beyond the text level and what level their children are up to, very few parents see reading as a whole. Often there is an assumption that reaching the end of the page without an error is experiencing success when reading. However, success can only really be achieved when a reader has enjoyed, understood and seen the benefits of reading that particular text. It goes beyond barking at print. Highlighting the importance of reading as a whole to the student and reminders to parents at parent teacher interviews has resulted in a shift of this thinking.

A future area of research to consider as earlier noted is exploring the benefits of explicit teaching to a group with similar needs. Furthermore, it would be useful to extend the students involved in this study in all areas of comprehension. As outlined by Smith (1969) in Westwood (2003), there are many levels of comprehension, these levels are; literal level, inferential level, critical level and creative level. General understanding of the text these students were reading was the outcome of this study, but it would be interesting to research how to push these students further with their comprehending strategies. Is visualisation enough for these students? What strategies would they need to employ to infer about characters, places and events in their stories or to predict with a fairly accurate attempt what might happen next in their texts and how characters would be affected?

For many of the students we teach, reading is a challenging task. However, with research and practical applications of skills, we have the pleasure of equipping them with skills, knowledge and strategies that will hopefully assist them on their journey and enable them to embark on their life-long journey as a learner.

References

ACER Press. https://shop.acer.edu.au/acer-shop/group/PAT4V Downloaded 21 Sep, 2011.

Clark, F.L., Deschler, D.D., Schumaker, J.B., Alley, G.R. & Warner, M.M., (1984) Visual Imagery and Self-Questioning: Strategies to Improve Comprehension of Written Material. *Journal of Learning Disabilities*, 17, 3, 145-149.

Collins, A., Brown, J.S. & Newman, S.E. (1989) Cognitive Apprenticeship: teaching the crafts of reading, writing and mathematics. In L.B. Resnik (ed.) *Knowing, learning and instruction: Essays in honour of Robert Glaser.* Lawrence Erlbaum, Hillsdale, NJ.

Guerrero, A.M., (2003) Visualisation and Reading Comprehension. *Paper submitted for Southwest Texas State University.*

Hagaman, J.L, Luschen, K. & Reid, R. (2010). The "RAP" on Reading Comprehension. *Teaching Exceptional Children, 43, 1, 22-29.*

Munro, J. K. (2011). EDUC90247 Literacy Intervention Strategies. Lecture notes. 2011.

Munro, J., (2003) How do we change what we know: thinking? *http://online.edfac.unimelb.edu.au/selage/pub/poel.htm* Downloaded September 2011.

Nelson, A.N. (2005). Developing Reading Comprehension through the use of the Visualisation Strategy. Paper presented at The University of Wisconsin Oshkosh, Oshkosh, WI.

Parker, R., Hasbrouck, J.E. & Denton, C. (2002). How to tutor students with reading comprehension problems. *Preventing School Failure,* 47, 1, 45-48.

Schnotz, W. & Kurschner, C., (2007) External and Internal representations in the acquisition and use of knowledge: visualisation effects on mental model construction. *Paper submitted for General and Educational Psychology, University of Koblenz-Landau, Germany.*

Sorrell, A.L. (1996). Triadic Approach to Reading Comprehension Strategy Instruction. *17p.; Paper presented at the Annual Conference of the Learning Difficulties Association of Texas* (32rd, Austin, TX, October 25, 1996).

Stephanou, A., Anderson, P., Urbach, D., (2008) PAT-R 4th Edition: Revised. Melbourne: ACER.

Westwood, P. (2003). *Reading and Learning Difficulties: Approaches to teaching and assessment.* Australia: ACER.

Woolley, G., (2010) Developing Reading Comprehension: Combining visual and verbal cognitive Processes. *Australian Journal of Language and Literacy,* 33, 2, 108-125.

Resources

Munro, KJ. K. (2011) Visualising Task. In Literacy Intervention Strategies Lecture notes, 2011)

Appendix

Appendix A: Table of Results

Name	Groups: Control = 0 Teaching=1	Age in MONTHS	Gender 0=Male 1= Female	Attendance No. of sessions	Vis PRE	Vis POST	PAT-R raw PRE	PAT-R raw POST	PAT-R Scale Score PRE	PAT-R score POST
A	1	93	0	12	21/32	30/32	13	23	94.9	121.7
B	1	94	0	11	4/32	19/32	15	19	98.7	108
C	1	96	1	12	14/32	20/32	19	20	107.5	110

Appendix B: Series of Lesson Plans

Lesson One: Pre-testing Session and brief introduction

Duration: 30mins

Outcome:

Students will have been introduced and excited about learning a new strategy. Teacher will have gathered the completed visualisation tests for scoring.

Method:

1. Students are introduced to the visualisation strategy and explained that it will help them understand what they are reading.

2. Compare the strategy to making a picture in our minds like a television.

3. Visualisation test is administered as per the script on the testing page. These are collected at the end of the session.

Resources:

- Visualisation Tests for each child and Teacher script.

- Pencils and erasers.

Lesson Two: Introduction of R.I.D.E.R and picturing in our minds

Duration 20mins

Outcome:

Students will be introduced and become familiar with the R.I.D.E.R. strategy and will have practised visualising in their minds.

Method:

1. Show students the R.I.D.E.R prompt cards, explain what each card means.

2. Explain that today we are going to use our minds like a video camera and picture a variety of sentences.

3. Teacher reads sentences one at a time. After each sentence students are prompted to close their eyes

and make the picture in their minds. Students then describe their pictures to group. Discuss any similarities and differences and question why these might occur.

4. Keep referring to the R.I.D.E.R prompt cards through this process.

Resources:

- R.I.D.E.R prompt cards.

- Prepared simple sentences.

e.g. *It was a hot summers day.*

The puppy was playing in the mud.

The blue flower sat high in the garden bed.

The boy shook with fright.

Lots of horses were in the paddock.

Pete the Pirate was stranded on and island.

Lesson Three: Review of R.I.D.E.R and drawing our mind pictures of simple sentences

Duration 30mins

Outcome:

Students will be reinforced with the R.I.D.E.R strategy and practise visualising and drawing their pictures.

Method:

1. Show students the R.I.D.E.R prompt cards, ask the students to remind you what they mean.

2. Explain that we are going to practise visualising some sentences and this time we are going to draw and describe what we have pictured in our minds.

3. Teacher reads a simple sentence and models drawing what she pictured. Discuss how the image matches the sentence. Reinforce the need for simple, quick drawings.

4. Students are provided with poster paper (with a sentence written on the top), students read their simple sentences, draw their image under their sentence and describe it to the group.

5. Keep referring to the R.I.D.E.R prompt cards through this process.

Resources:

- R.I.D.E.R prompt cards.

- Textas.

- Prepared simple sentences on large poster paper.

e.g. *She lit the candles on the birthday cake.*

The policeman directed the traffic.

They wandered about the Land of Toys.

Phil ran up the ladder.

The dog curled up on the rug.

Everyone rushed to the door.

The enormous wooden door was at the end of the hall.

She got splashed by the children in the pool.

Lesson Four: Review of R.I.D.E.R and drawing our mind pictures of complex sentences

Duration 30mins

Outcome:

Students will be reinforced with the R.I.D.E.R strategy and practise visualising and drawing their pictures.

Method:

1. Show students the R.I.D.E.R prompt cards, ask the students to remind you what they mean.

2. Explain that we are going to practise visualising some more sentences and draw and describe what we have pictured in our minds.

3. Teacher reads a complex sentence and models drawing what she pictured. Discuss how the image matches the sentence. Reinforce the need for simple, quick drawings.

4. Students are provided with poster paper (with a sentence written on the top), students read their complex sentences, draw their image under their sentence and describe it to the group.

5. Keep referring to the R.I.D.E.R prompt cards through this process.

Resources:

- R.I.D.E.R prompt cards.

- Textas.

- Prepared complex sentences on large poster paper.

e.g. *The children sat and talked about their last adventure.*

They went over to the green goblin, he was screaming at the top of his voice.

Down the ladder came a wooden solider, he saluted as he went past.

It was a small town, set with little crooked houses and shops- and every single   house was made of things to eat!

Everyone had a turn at tugging the branch, but it was no use, the ball wouldn't come down.

Lesson Five: R.I.D.E.R strategy with a short story (sentence by sentence)

Duration 30mins

Outcome:

Students will use the R.I.D.E.R strategy as they read a short, easy story.

Method:

1. Show students the R.I.D.E.R prompt cards, ask the students to remind you what they mean.

2. Explain that we are going to read a short story today and use the R.I.D.E.R strategy to help us understand what we are reading.

3. Show poster paper and explain the process.

4. Students are provided with a short, easy story. Read the story together and take turns to draw an image for each sentence in the box provided and describe it to the group. Continue until the story is completed and each student has shown a good understanding of this process.

5. Keep referring to the R.I.D.E.R prompt cards through this process.

6. Together use the poster to retell the story using the pictures we have drawn.

Resources:

- R.I.D.E.R prompt cards.

- Textas.

- Short, easy levelled story.

- Prepared poster paper with grid for pictures.

e.g.

Lesson Six: R.I.D.E.R strategy with a short story (sentence by sentence)

Duration 30mins

Outcome:

Students will use the R.I.D.E.R strategy as they read a short, easy story.

Method:

1. Show students the R.I.D.E.R prompt cards, ask the students to remind you what they mean.

2. Revise last lesson, and explain that we are going to use the R.I.D.E.R strategy again to help us understand another story.

3. Show poster paper and revise the process.

4. Students are provided with a short, easy story. Read the story together and take turns to draw an image for each sentence in the box provided and describe it to the group. Continue until the story is completed and each student has shown a good understanding of this process.

5. Keep referring to the R.I.D.E.R prompt cards through this process.

6. Together use the poster to retell the story using the pictures we have drawn. Evaluate what we have

drawn. What would you change?

Resources:

- R.I.D.E.R prompt cards.

- Textas.

- Short, easy levelled story.

- Prepared poster paper with grid for pictures.

e.g.

Lesson Seven: R.I.D.E.R strategy with a short story (sentence by sentence)

Duration 30mins

Outcome:

Students will use the R.I.D.E.R strategy as they read a short, easy story.

Method:

1. Show students the R.I.D.E.R prompt cards, ask the students to remind you what they mean.

2. Revise last lesson, and explain that we are going to use the R.I.D.E.R strategy again to help us understand another story.

3. Show poster paper and revise the process.

4. Students are provided with a short, easy story. Read the story together and take turns to draw an image for each sentence in the box provided and describe it to the group. Continue until the story is completed and each student has shown a good understanding of this process.

5. Keep referring to the R.I.D.E.R prompt cards through this process.

6. Together use the poster to retell the story using the pictures we have drawn. Evaluate what we have drawn. What would you change?

Resources:

- R.I.D.E.R prompt cards.

- Textas.

- Short, easy levelled story.

- Prepared poster paper with grid for pictures.

e.g.

Lesson Eight: R.I.D.E.R strategy with a short story (page by page)

Duration 30mins

Outcome:

Students will use the R.I.D.E.R strategy as they read a short story.

Method:

1. Show students the R.I.D.E.R prompt cards, ask the students to remind you what they mean.

2. Revise last lesson, and explain that we are going to use the R.I.D.E.R strategy again to help us understand another story, <u>but this time we are going to identify the main idea on each page, visualise and draw a picture for the page.</u>

3. Show poster paper and revise the process. Teacher models identifying the main idea and drawing the picture.

4. Students are provided with a short story. Read the story together, stop after each page and discuss the main idea. Take turns to draw an image for each page in the box provided and describe it to the group. Continue until the story is completed and each student has shown a good understanding of this process.

5. Keep referring to the R.I.D.E.R prompt cards through this process.

6. Together use the poster to retell the story using the pictures we have drawn. Evaluate what we have drawn. What would you change?

Resources:

- R.I.D.E.R prompt cards.

- Textas.

- Short story.

- Prepared poster paper with grid for pictures.

e.g.

Lesson Nine: R.I.D.E.R strategy with a short story (page by page)

Duration 30mins

Outcome:

Students will use the R.I.D.E.R strategy as they read a short story.

Method:

1. Show students the R.I.D.E.R prompt cards, ask the students to remind you what they mean.

2. Revise last lesson, and explain that we are going to use the R.I.D.E.R strategy again to help us understand another story; we are going to identify the main idea on each page, visualise and draw a picture for the page.

3. Show poster paper and revise the process. Teacher revises how to identify the main idea and draw the picture.

4. Students are provided with a short story. Read the story together, stop after each page and discuss the main idea. Take turns to draw an image for each page in the box provided and describe it to the group. Continue until the story is completed and each student has shown a good understanding of this process.

5. Keep referring to the R.I.D.E.R prompt cards through this process.

6. Together use the poster to retell the story using the pictures we have drawn. Evaluate what we have drawn. What would you change?

Resources:

- R.I.D.E.R prompt cards.

- Textas.

- Short story.

- Prepared poster paper with grid for pictures.

e.g.

Lesson Ten: Independent use of R.I.D.E.R strategy

Duration 30mins

Outcome:

Students will independently use the R.I.D.E.R strategy as they read a short story.

Method:

1. Show students the R.I.D.E.R prompt cards, ask the students to remind you what they mean.

2. Revise last lesson, how we identified the main idea on each page, visualised and drew a picture for the page.

3. Students are provided with a short story and a bookmark of R.I.D.E.R process. Read the story independently and use the R.I.D.E.R strategy to help them understand what they are reading.

4. Students retell the story in their own words and evaluate how well they visualised and whether it helped

them understand the story better. What worked well? What could you do better? What would you change?

Resources:

- R.I.D.E.R bookmarks for each student.

- Short story.

Lesson Eleven: Independent use of R.I.D.E.R strategy

Duration 30mins

Outcome:

Students will independently use the R.I.D.E.R strategy as they read a short story and evaluate themselves.

Method:

1. Show students the R.I.D.E.R prompt cards, ask the students to remind you what they mean.

2. Revise last lesson, talk about last lessons evaluation time. Ask students to keep those things in mind when reading.

3. Students are provided with a short story and a bookmark of R.I.D.E.R process. Read the story independently and use the R.I.D.E.R strategy to help them understand what they are reading.

4. Students retell the story in their own words and evaluate how well they visualised and whether it helped them understand the story better. Do you think you were better this time? Why? What worked well? What could you do better? What would you change?

Resources:

- R.I.D.E.R bookmarks for each student.

- Short story.

Lesson Twelve: Post testing

Duration 30mins

Outcome:

Students learning is assessed and data gathered by the teacher.

Method:

1. Students review their learning over the last couple of weeks.

2. Visualisation test is administered as per the script on the testing page. These are collected at the end of the session.
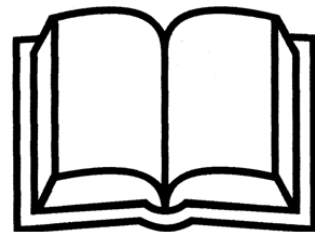
Resources:

- Visualisation Tests for each child and Teacher script.
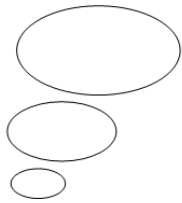
- Pencils and erasers.

RIDER

(1) **R**ead
(2) **I**mage – picture
(3) **D**escribe
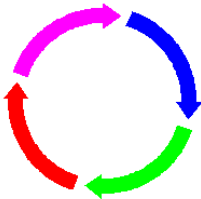(4) **E**valuate – check
(5) **R**epeat – steps 1 2 3 4

1. **R**ead

2. Image - put a picture in your mind

3. Describe

4. Evaluate
check

5. Repeat
steps 1,2,3,4

Appendix D: R.I.D.E.R bookmark

R.I.D.E.R

Read

Image

Draw/Describe

Evaluate

Repeat

…