

IMPROVING READING COMPREHENSION OF DESCRIPTIVE TEXTS USING SEMANTIC MAPPING AMONG YEAR FIVE STUDENTS WITH LOW PROFICIENCY IN READING SKILLS

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Abstract

My action research was aimed to improve my pupils reading comprehension skills and my practices in teaching reading comprehension through using semantic mapping. My participants were three Year Five pupils with low English Language proficiency. I collected data using observation, photographs, worksheets and feedback from pupils and teachers involved in this study. The data collected were analysed, interpreted and triangulated based on the discussions with my critical friend and also teacher mentor. The findings showed that my pupils performed better in reading comprehension tasks, as well as increase in confidence in answering comprehension questions because they could map their ideas and thoughts about text read using the semantic map. I also realized that it could be used in a cooperative learning setting as well to create more meaningful learning experience among low-performing pupils.

Keywords: semantic mapping, reading comprehension, improving, meaningful learning, low-performing pupils.

Abstrak

Penyelidikan tindakan saya bertujuan membantu meningkatkan kefahaman membaca murid saya serta mempertingkatkan amalan saya dalam mengajar kefahaman membaca dengan menggunakan pemetaan semantik (*semantic mapping*). Peserta kajian saya terdiri daripada tiga orang murid Tahun Lima yang rendah penguasaan dalam Bahasa Inggeris. Saya telah mengumpulkan data melalui pemerhatian, fotograf, lembaran kerja dan maklum balas daripada murid serta guru yang terlibat dalam kajian ini. Dapatan kajian menunjukkan murid-murid saya menunjukkan peningkatan prestasi serta keyakinan diri dalam menyelesaikan soalan kefahaman membaca melalui pemetaan idea dan pemikiran tentang teks bacaan melalui peta semantik. Saya juga sedar bahawa pemetaan semantik juga dapat digunakan dalam persekitaran pembelajaran koperatif untuk mewujudkan satu pengalaman pembelajaran yang bermakna dalam kalangan murid berpenguasaan rendah dalam Bahasa Inggeris.

Kata kunci: pemetaan semantik, kefahaman membaca, meningkatkan, pembelajaran yang bermakna, berpenguasaan rendah.

INTRODUCTION

Context

I am a pre-service teacher undergoing a five-and-a-half-year degree programme majoring in Teaching English as a Second Language for (TESL) Primary School at the Institute of Teacher Education (ITE) Batu Lintang Campus. At the date of this of this writing, I am in my eighth semester, and would have completed my third teaching practice (twelve weeks) at SK St. Paddy Padawan,

situated about 35 kilometres from the campus. Prior to that, I underwent my first phase of teaching practice (four weeks) in the same district (SK St. Augustus) and the second (eight weeks) in the Bau district (SK Sungai Perang) (names of schools are in pseudonyms). Throughout these several phases of teaching practices, I have been involved with teaching predominantly Bidayuh primary school pupils from semi-urban settings, with English Language proficiency levels ranging from mostly average to low.

Issue of Concern

The gravest concern that I have based on my observation throughout my previous stints of teaching practice, and unsurprisingly it also manifested in my last teaching practice, was that the pupils were having problems in reading comprehension. What I have observed was that while word recognition is hardly a problem for the pupils, it is a totally different matter with reading comprehension. In my lessons where reading was the focused skill of the day, I always find the pupils having difficult time in completing reading comprehension activities such as “read and answer”, “read and fill in the blanks”, and even more so “read and complete the table with the correct information”. There were mismatch information in the students’ work in addition to the students not attempting to complete their work (Figure 1)

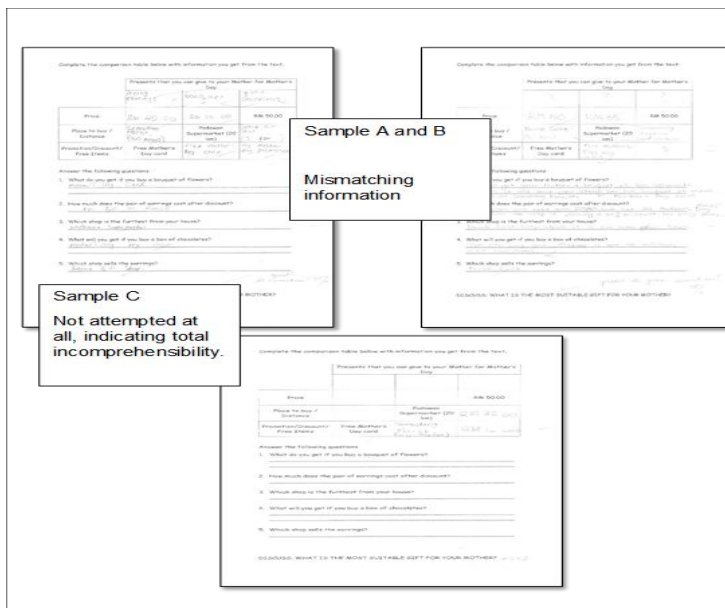


Figure 1. Samples of students’ work with a brief error analysis

This is an alarming observation because according to the Standard Curriculum for Primary Schools (KSSR) for English Language (Ministry of Education, 2014), by the end of the six year schooling period, pupils must be able to perform the basic literacy skills indicated by the Content Standards (CS) and Learning Standards (LS) provided for each skills (Figure 2), and for the skill of reading, by the end of the Year 5 period, pupils should be able to “demonstrate understanding of a variety of linear and non-linear texts in the form of print and non-print materials using a range of strategies to construct meaning” among others (p 35). This indirectly implies that at the Year 5 level, the pupils should already have the precursory knowledge or mental

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schemata to perform the outlined CS and LS in that level or year, before proceeding to the next one.

| READING SKILLS | | | |
|--|--|--|--|
| CONTENT STANDARD | LEARNING STANDARD | PERFORMANCE LEVEL | PERFORMANCE STANDARD DESCRIPTOR |
| 2.2 By the end of the 5-year primary schooling, pupils will be able to demonstrate understanding of a variety of linear and non-linear texts in the form of print and non-print materials using a range of strategies to construct meaning. | 2.2.1 Able to apply word attack skills by: (a) using contextual clues to get meaning of words (i) before the word (anaphoric) (ii) after the word (cataphoric) (b) identifying idioms | 1 | Can read but has very limited ability in: • using contextual clues to get meaning of words and identifying idioms • understanding phrases and sentences from linear and non-linear texts |
| | | 2 | Can read but has limited ability in: • using contextual clues to get meaning of words and identifying idioms • understanding phrases and sentences from linear and non-linear texts |
| | 3 | Can read and has satisfactory ability in: • using contextual clues to get meaning of words and identifying idioms • understanding phrases and sentences from linear and non-linear texts | |
| | 4 | Can read and has good ability in: • using contextual clues to get meaning of words and identifying idioms • understanding phrases and sentences from linear and non-linear texts | |
| | 5 | Can read and has very good ability in: • using contextual clues to get meaning of words and identifying idioms • understanding phrases and sentences from linear and non-linear texts | |

| CONTENT STANDARD | LEARNING STANDARD | PERFORMANCE LEVEL | PERFORMANCE STANDARD DESCRIPTOR |
|--|-------------------|-------------------|---|
| 2.2.3 Able to read and demonstrate understanding of texts by: (a) inferring (b) predicting (c) giving main ideas and supporting details 2.2.4 Able to apply dictionary skills (a) recognise abbreviations (b) understand meaning of words in context | | 1 | Can read but show a very limited understanding of texts by: • sequencing, predicting, giving main ideas and supporting details • applying dictionary skills |
| | | 2 | Can read but show a limited understanding of texts by: • sequencing, predicting, giving main ideas and supporting details • applying dictionary skills |
| | | 3 | Can read and show a satisfactory understanding of texts by: • sequencing, predicting, giving main ideas and supporting details • applying dictionary skills |
| | | 4 | Can read and show a good understanding of texts by: • sequencing, predicting, giving main ideas and supporting details • applying dictionary skills |
| | | 5 | Can read and show a very good understanding of texts by: • sequencing, predicting, giving main ideas and supporting details • applying dictionary skills |

Figure 2. Excerpts taken from the KSSR Year 5 English Language syllabus outlining the specifications concerning the skill of reading.

Research Objectives

For my action research, I have identified several research objectives that I strived to achieve throughout the research process. Firstly, as a practitioner I would seek to improve my own practices specifically in teaching reading comprehension to low-performing Year 5 pupils using semantic mapping. Secondly, focusing on my pupils as the research participants, I would use semantic mapping to improve reading comprehension among low-performing Year 5 pupils.

Research Questions

- This study was implemented to answer the following research questions.
- How does using semantic improve my practice in teaching reading comprehension to low-performing Year 5 pupils?
 - How does semantic mapping help my low-performing Year 5 pupils in reading comprehension?

ACTIONS

Planning and Implementation of Actions

Before attempting any action in the research, I did extensive reading on related literature to help me understand the problem faced by my participants. McEwan (2002) in her book *Teach Them All to Read* proposed the paradigm of reading is similar to that of a jigsaw puzzle that she named "The Reading Puzzle. This paradigm proposes that the very notion of "reading" is in fact a combination of nine sub-skills - phonological awareness, phonics, spelling, fluency, language, knowledge, cognitive strategies, reading a lot and also a reading culture – and the success of any individual in acquiring and mastering the skill of reading relies heavily in the development and mastery of these sub-skills.

Fluent readers, or individuals with sounds reading basics will be transition easily through the learning levels, and able to display adequate level of performance in various academic tasks that needs reading skills in practice (Stevens, 2010). Poor or influent readers, or those lagging behind the rest however will spend their school years in remedial reading, special education, alternative education or compensatory education and faces higher possibilities of dropping out from school still unable to show minimum performance level in the skill of reading (Elley, 1992 in McEwan, 2002). Stanovich (1986)(in Torgesen, 1998) succinctly posited that if no intervention is given to help these poor readers, it will lead to the "Matthew effect" (the rich get richer and the poor get poorer) associated with failure to acquire early word reading skills.

Semantic mapping is one of the method to address this problem. It is a technique that can help pupils clarify their ideas before they read or discuss a new topic (Swinney & Velasco, 2011). It is a form of mind-mapping that allows teachers or instructors to find out what pupils already know (their prior knowledge) because comprehension can be thought of as elaborating and refining one's prior knowledge and what semantic mapping provides is a graphic structure of that knowledge to be used as the basis for organizing new ideas as they are being understood. For struggling readers, it is a very good technique for them to identify, understand and recall the meaning of words they read in a text (Zorfass & Gray, 2014). Figure 3 exemplifies how one would use a semantic map to describe a subject.

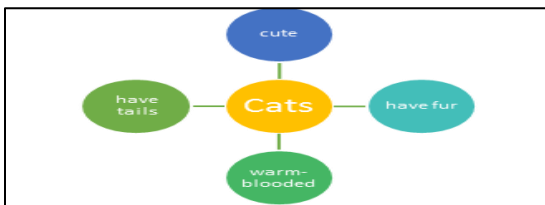


Figure 3. Sample of semantic map about 'cats'

Next, I gradually incorporated semantic mapping into the reading process of my participants. I showed to them how to construct semantic mapping in detail, and asked them to do the same after reading the text given. I added semantic mapping after the reading process so that it helps the pupils to understand the text they have read (Figure 4)

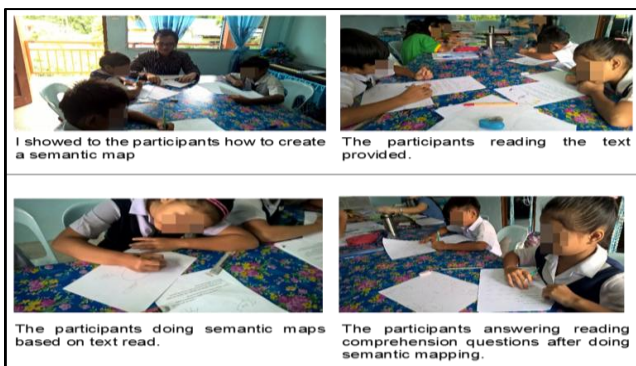


Figure 4. Stages in the research process

METHODOLOGY

Research Participants

I have chosen only three research participants through the process of purposive sampling (Patton, 1990; cited in Coyne, 1996) – two females and one male. They are Rovio, Elfy and Kristin (pseudonyms). All three of them are Year Five students at SK St. Paddy during my third practicum. All three of them were low-performing students in the English Language, and showed limited comprehension of reading texts from my observation in previous reading lessons that I have conducted in the classroom. They were quite the shy students, and they needed to be encouraged to participate in classroom activities. Two of them – Elfy and Rovio – were remedial students who have been reintroduced to mainstream classes.

On the other hand, I also considered myself as a participant in this action research, because the very reason that action research is to improve own practice (Elliot, 1991). I undertook this research because I believe that it was important for me to go back and reflect upon my practices in teaching reading comprehension before I carried out the action research so that I could make improvements based on my findings.

Research Ethics

Before undertaking this action research, I have asked expressed permission from the school to carry out my research by providing the appropriate supporting documents from the Institute. After that, I handed out consent forms to my research participants to be completed by their parents or guardians to provide me access to the participants for my research sessions, and also express permission to take photo records of the sessions.

Besides that, I gave the participants a full briefing to explain what they could expect to go through in my action research. I also explained that I would be observing them throughout the research process, as well as interviewing them and also keeping record of their works in the research. I too obtained expressed consent (verbally) from my participants in addition to the permission given by their parents.

In this report, I have given my research participants and the school I conducted my action research at pseudonyms in order to protect their real identities and to respect their privacies. All photographs featuring the faces of my research participants were edited so that their real faces will not be featured in any reports or publications in the interest of their real identities or potential defamation/harm.

Data Collecting Methods

Under observation, I made reflective notes as I carried out my actions. I too took photographic evidences to capture important moments or key procedures in my research for documentation purposes. All my observations were made using unstructured observation to provide me flexibility in denoting important events or phenomenon that I believed to be important.

I had interviewed several parties, namely my teacher mentor, my research participants and also critical friend to get their insights about my action research, and to corroborate my research procedures. I used semi-structured and unstructured interviews in order to obtain their responses.

In document analyses, I collected worksheets from my participants for analysis. The worksheets were further analysed for pertinent data.

Data Analysis Techniques

After I had collected data from various sources, I analysed them in order to derive my findings. For data analysis, I employed the use of two data analysis techniques: content analysis and pattern analysis.

Under content analysis, I analysed my data structurally to investigate and find out emerging themes or descriptions that I used to answer my research questions. I used it especially for data gathered from interviews and observations. All pertinent or relevant data entries were highlighted so that a common theme could be generated from them.

Under pattern analysis, I had analysed the worksheets completed by my participants, and to tabulate the frequency of attempted questions, questions that were correctly answered and also questions that were wrongly answered. The data was then put against my initial data to map my participants progress or improvement in the action research.

Data Checking Techniques

In data checking, I have used data triangulation to establish trustworthiness towards my research, and also to ensure that I had collected valid and reliable data. According to Waltz, Strickland and Lenz (2010), data triangulation involves using multiple sources of data to measure or to describe a common phenomenon, and it allows me to get a more holistic perspective from all the parties involved in my research (Burns, 2010)

Firstly, I had carried out method triangulation whereby I involved my teacher mentor and critical friend in providing feedback on my research implementation, and to corroborate my research methodologies using feedback forms and also observation forms.

Secondly, I carried out time triangulation, whereby I collected my data on two separate occasions. On both times, I used the same methodologies and implementation steps, however with a slightly different material. The data, however did not show any profound difference between occasions (Figure 5).

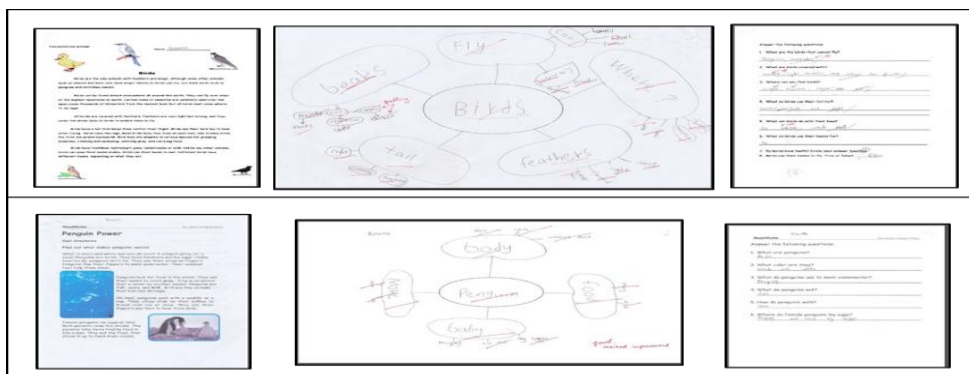


Figure 5 Data checking – time triangulation

Thirdly, I also did person triangulation, whereby I already involved three research participants in my research. I sought to look for similarities in the data I collected from these participants in order to build up a more conclusive analysis.

Besides triangulation, I also did member checking. I transferred all the data provided by my research participants onto a form that would be signed by the participants to acknowledge that all the data they had supplied was indeed true. They also corroborated my research procedures in the member checking form (Figure 6).

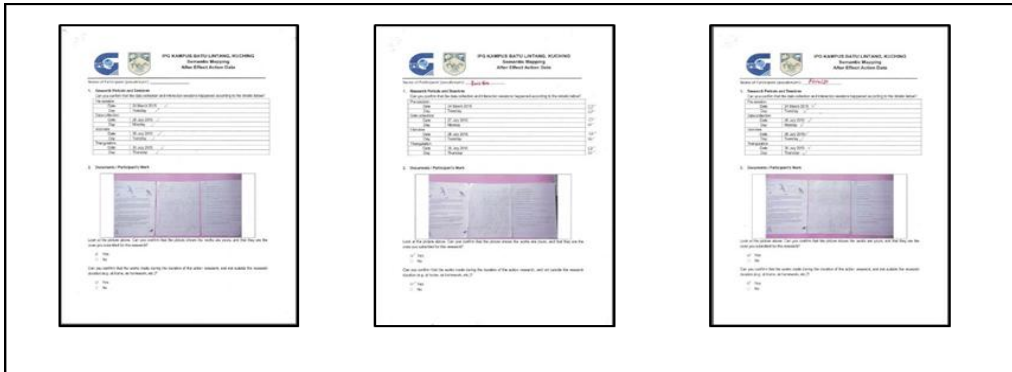


Figure 6. Member checking forms

FINDINGS

Using semantic mapping after the process of reading improved my practice in teaching reading comprehension among low-performing Year Five pupils because it was an effective specific intervention to remediate poor reading comprehension in low-performing students. After introducing semantic mapping activity in the reading process, I saw positive results and marked improvements in the quality of the works of my participants. I did a tabulation (pattern analysis) to see clearly how my participants had improved in their reading comprehension (Table 1).

Table 1

Analysis of Participants' Work Before and After Action (Semantic Mapping)

| Participant | Before action | | After action | |
|-------------|---------------------------|------------------------------------|---------------------------|------------------------------------|
| | Questions Attempted (x/5) | Questions Correctly Answered (x/5) | Questions Attempted (x/8) | Questions Correctly Answered (x/8) |
| Elfy | 3 | 1 | 8 | 8 |
| Rovio | 0 | 0 | 8 | 5 |
| Kristin | 3 | 1 | 8 | 4 |

Semantic mapping also helped my research participants to map their ideas and understanding graphically before attempting the normal reading comprehension questions. After reading the text read, the participants were required to map out what they have read into semantic maps, and make connections and correct categorisations between the words that they have written on the semantic map. This

indirectly transforms what they have understood from a linear text into a non-linear form. I believe that this process actually made it simpler for participants to demonstrate how well they understood the text before they attempted answering normal and linear reading comprehension tasks (Wh-question). It was proven in their works, whereby a majority of the important points in the text were present in their semantic map (Figure 7).

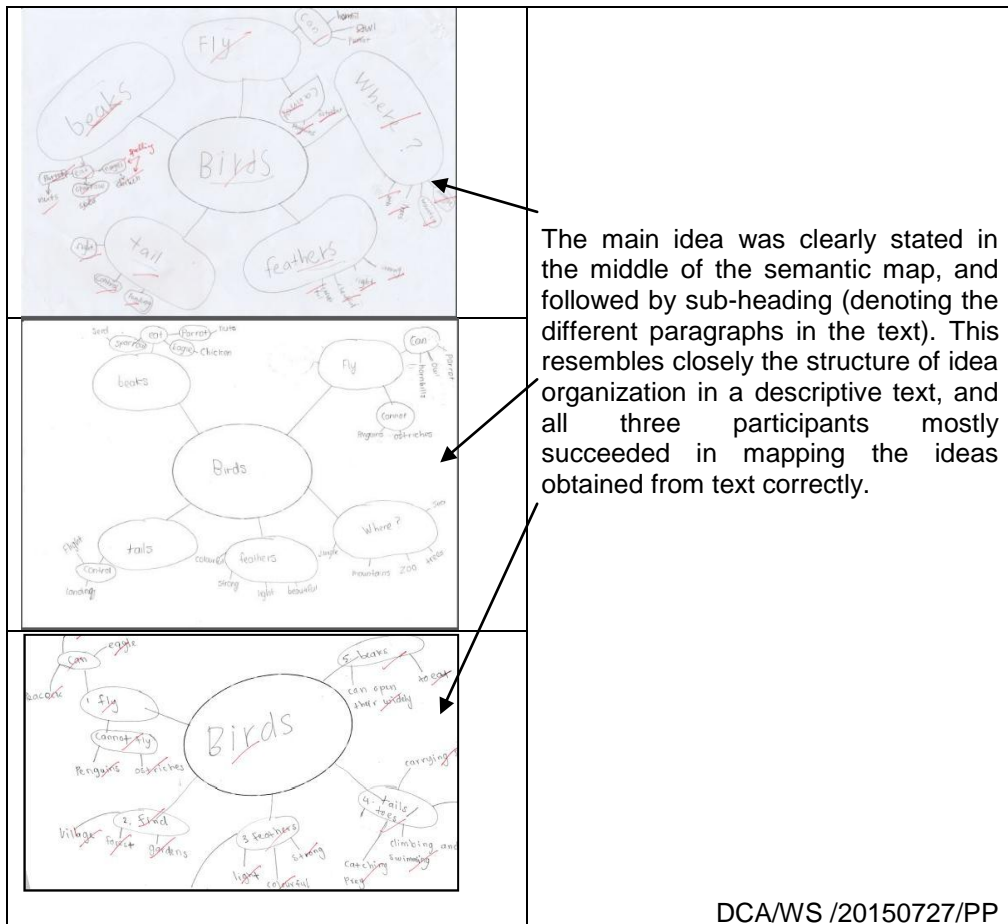


Figure 7. Analysis of semantic maps made by participants

Surprisingly, one of the participant showed evidence of adding prior knowledge to her semantic map (Figure 8). This suggested that semantic mapping helped her to make idea connections between what she read and what she knew. The implication here was immense – not only participants could map out their understanding of the text read in the form of semantic maps and make correct idea connections between the words they have put into them, but they also allow participants to enrich and to build up their own comprehension and understanding using what they have known prior to the research.

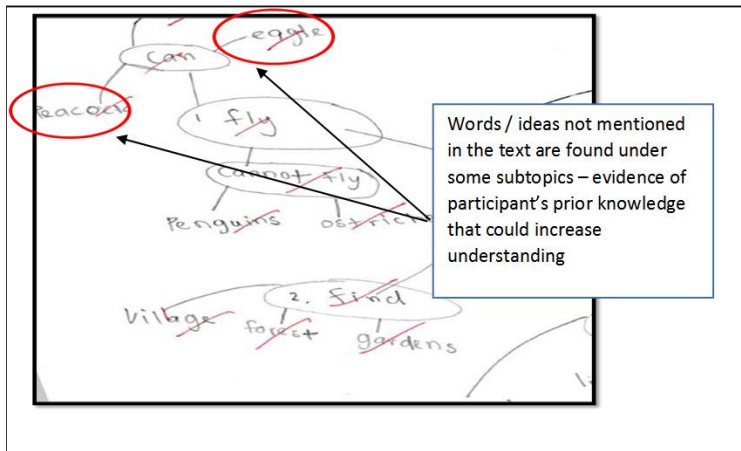


Figure 8. The extra element brought in by one of the participants in her semantic map.

REFLECTION

Summary of Findings

The use of semantic mapping helped my participants greatly in the sense that it offers them an alternative to show what they have understood for the text. In this context, semantic mapping offered them a way to present their understanding in non-linear form (Zorfass & Gray, 2014), which is no way less accurate than the normal way of assessing reading comprehension. Semantic mapping also allowed the participants to contribute towards building their own understanding by making it easy for them to include their own prior knowledge wherever applicable.

Further Reflection

Semantic mapping is not a novel idea – in fact it has been extensively researched on; however, little research was actually done to show that it could be adapted to help low-performing students to show their comprehension in a non-linear way. Therefore, it was quite challenging to actually establish an acceptable research procedure that helped me find out how semantic mapping could improve my pupils' reading comprehension capacities.

At a glance, semantic mapping seemed to help to improve at a superficial level; however, I could not carry out a more detailed research to actually study the internal mental processes of my participants as the research time framework limited the length of study, and I also do not possess the necessary skills and knowledge in order to carry out such scientific study. However, at the most basic operational level, I believe that semantic mapping is a useful medium for improving reading comprehension among low-performing student in a basic capacity, and it could be enriched by allowing participants to bring their own prior knowledge.

Personally I felt accomplished because as a practitioner, I had improved a lot in terms of figuring out the best methodologies for different student needs. Before the action research, I taught reading comprehension using a very rigid structure, that I used to believe will fit all students' abilities. It was upon knowing that my low-

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performing students were lagging behind that I took the initiative to find the best way to teach them reading comprehension, because I felt accountable to help my pupils to achieve a better standing in terms of academic achievement, and this action research hopefully would be a good start for that.

SUGGESTIONS FOR THE NEXT CYCLE

I would like to try doing this activity in a cooperative learning setting – be it homogenous (low-performing pupils only) or heterogeneous (mixed ability) to see whether a group setting would enhance the use of semantic mapping, because I believe cooperative learning takes away performance anxiety in the pupils, as well as providing pupils the opportunity to share ideas. Secondly, I would like to extend the usage of this semantic mapping into real classroom setting as opposed to an isolated setting.

Semantic mapping in its original context of use, is supposedly done before the reading activity so that it helps pupils brainstorm or outline semantic connections that will help them to understand the text they are going to read (Zorfass & Gray, 2014). Therefore, in next cycles I would like to carry out semantic mapping before the act of reading itself to see whether it helps more in that capacity or otherwise, and to compare those findings to what I have now.

Last but not least, I would like to work with different types of texts in future cycles. In this cycle, I used only descriptive text owing to the fact that its straightforward structure, which made the research administration easier and more convenient. Therefore, to really gauge the real potential of semantic mapping in helping low-performing pupils to improve in reading comprehension, it would be best to use different texts in the future such as narrative, directive, expository and also argumentative/persuasive texts.

REFERENCES

- Bernama. (2014, September 28). Reading habit on the rise in Malaysia, says literary expert. *The Malaysian Insider*. Retrieved from <http://www.themalaysianinsider.com/books/article/books-influence-peoples-like-world-says-professor>
- Blank, M. (2006). *The reading remedy: Six essential skills that will turn your child into a reader*. San Francisco, CA: Jossey-Bass.
- Booth, D. (2001). *Reading and writing in the middle years* (p. 147). Portland, ME: Stenhouse Publishers.
- Duke, N. K., & Block, M. K. (2012). Improving reading in the primary grades. *Literacy Challenges for the Twenty-First Century*, 22(2), 55-66.
- Durkin, D. (2003). *Teaching them to read* (6th ed.). Boston, MA: Allyn and Bacon.
- Harrison, C. (2004). *Understanding reading development*. Thousand Oaks, CA: SAGE Publications.
- Inderjit, S. (2014). Reading trends and improving reading skills among students in Malaysia. *International Journal of Research in Social Sciences*, 3(5), 70-78.
- Kelly, C., & Campbell, L. (2012). Helping struggling readers. In *New Horizons for Learning*. Retrieved from <http://education.jhu.edu/PD/newhorizons/strategies/topics/literacy/articles/helping-struggling-readers/>

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- Lenski, S., & Verbruggen, F. (2010). *Writing instruction and assessment for English language learners k-8* (p 93). New York: The Guilford Press.
- McEwan, E. K. (2002). *Teach them all to read: Catching the kids who fall through the cracks*. Thousand Oaks, CA: Corwin Press.
- McNiff, J. (2013). *Action research: Principles and practices* (3rd ed., pp. 56-57). New York, New York: Routledge.
- Mudzielwana, N. P. (2013). Research-based teaching comprehension strategies: Bridging the gap. *Journal of Language Teaching and Research*, 4(2), 317-327.
- Oakhill, J., & Cain, K. (2000). Children's difficulties in text comprehension: Assessing causal issues. *Journal of Deaf Studies and Deaf Education*, 5(1), 53-58.
- Peterus Balan Sing. (2015). *Improving reading comprehension of descriptive texts using semantic mapping among Year Five students with low proficiency in reading skills*. Unpublished Thesis for the Bachelor Degree in Teaching with Honours. Kuching, Sarawak: Institute of Teacher Education Batu Lintang Campus.
- Raiziene, S., & Grigaite, B. (2005). Developing child's thinking skills by semantic mapping strategies. *TRAMES*, 9(2).
- Shanker, J. L., & Ekwall, E. E. (2003). *Locating and correcting reading difficulties* (8th ed., p. 61). Upper Saddle River, NJ: Pearson Education.
- Swinney, R., & Velasco, P. (2011). *Connecting content and academic language for English learners and struggling students grades 2-6* (pp 8-11). Thousand Oaks, CA: Corwin Press.
- Stevens, A. (2010, June 22). 3 ways poor reading skills impact 68% of 4th graders. In *Reading Horizons*. Retrieved from <http://www.readinghorizons.com/-ways-poor-reading-skills-impact-6825-of-4th-graders.aspx>
- Torgesen, J. K. (1998). Catch them before they fall: Identification and assessment to prevent reading failure in young children. *American Educator/American Federation of Teachers*, 1-8.
- Zorfass, J., & Gray, T. (2014, May 5). Connecting word meanings through semantic mapping. In *Reading Rockets*. Retrieved from <http://www.readingrockets.org/article/connecting-word-meanings-through-semantic-mapping>