

TITLE

INTRODUCING MIND MAP IN COMPREHENSION

AUTHORS & SCHOOL

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INTRODUCTION

Through our yearly result analysis, it is often noted that comprehension is one of the assessment components that pupils are generally weak in. Comprehension constitutes a higher percentage of the Chinese Language paper as the child goes up to a higher level in school. Therefore, it is important to address this area of concern and finding out the problems as to help the pupils to attempt the questions with more confidence.

RATIONAL

Through the teachers' discussion session, one of the reasons noted was that pupils quite often are unable to process and organize the whole chunks of information in the text passage in trying to attempt the comprehension questions. Large number of pupils when asked have reviewed that they usually read the comprehension passage once and go straight into answering the questions directly without deep understanding of the content. As a result, they were unable to answer the comprehension questions correctly or having partial correct answer.

OBJECTIVES

Therefore, our action research project would like to address this concern of introducing mind map as one of the comprehension strategy in teaching of understanding of text passage. The use of mind map will help to break the complexity of the text passage into words for easier understanding. It also helps the pupils to generate and organize ideas in a visual map.

This action research of using mind map as a tool in teaching comprehension skills hopes to achieve the results:

1) pupils able to understand and remember the comprehension passage better in establishing meaningful links, pattern, relationship among concepts and information.

2) visual mapping also to help pupils to develop their thinking skills, sorting of information and ideas, thus developing better understanding in a topic area

3) Pupils to gain confidence in attempting comprehension questions.

When pupils master the skills in comprehension, they will then find it relatively easier to answer the comprehension questions .

LITERATURE REVIEW :

“ A mind map is a special kind of brain-friendly diagram that helps you to think, imagine, remember things and plan and sort information” (Mind maps for kids rev up for revision).

It is an image-centered diagram that represents semantic or other connections in a radical, non-linear graphical manner, it encourages a brainstorming approach to any given organizational tasks, eliminating the hurdle of initially establishing an intrinsically appropriate or relevant conceptual framework to work within”.
(Wikipedia, the free encyclopedia)

It uses lines, colours , arrows , branches or some way of showing connections between ideas generated on your mind map. Our brains remember things better with visual , colours and pictures and therefore remember the facts and ideas that go with them.

METHOD:

Two Primary 4 classes of mixed ability were identified to take part in this project as to measure the effectiveness of the outcomes. The enrolment of these 2 classes were 33 and 34 pupils , comprising of both girls and boys. There was no control over the ratio of girls and boys in the class since the pupils were pre-allocated at the beginning of the school year. The subject teachers felt that they would be able to see how the project going to benefit both the weak and strong pupils in the class.

DESIGN

Subject teachers of both classes gathered to discuss about the project such as

objectives, time frame, comprehension passages to be selected and type of survey questions needed. It was decided that the project will stretch for a period of 10 weeks . To cut down on adding more teaching content both for the pupils and teachers, the teachers would use the 3 sub-units of the current Chinese syllabus as their comprehension passages. These comprehension passages were carefully selected as to ensure the reading vocabulary encountered in the texts needed to map onto the oral vocabulary the pupils learn.

PROCEDURE:

Before the teachers start introducing Mind Map in teaching for the text passages, it is important for teachers explain the meaning of some of the vocabulary words before getting the pupil to read through the passage so as to facilitate vocabulary understanding and comprehension for those pupils who are weak in this subject. Teachers will then start the lesson demonstration of how to present the chunks of information from the passage into a overview single page pictorial form. Pupils were taught how colour was used to differentiate areas of Mind Map and Visual images that were used to illustrate the different themes and topics.

For the second and third experiments, the first procedure explaining the vocabulary still needed to be done to clear the difficult boundary for pupils to comprehend the passage. The pupils are then instructed to form into various groups and pre-drawn mind map frameworks were given for pupils discussion on what key information and words to fill in the given Mind Map. Under teachers' guidance, the pupils started to revise and summarize the content or story of the comprehension passages in the mind-map form. The teachers would provide the necessary guidance to help pupils in presenting the information in the passage in the mind map for easily

remembering .Pupils are guided to start with the centre with the main topic of the passage.

The main theme of the subject radiate from the central image as branches to write down the key words, phrases that conveyed the most important message in relation to the sub-centres. Teachers to play the role of facilitator as to help pupils to choose the right key word or phrase and the organization of the information to establish meaningful links among concepts and ideas of the story.

MEASURE

A Pre and Post test were carried out for each comprehension passage.

During the Pre-test, pupils were expected to answer 4 comprehension questions set based on each passage. After teacher had implemented the mind Map strategy in teaching for the passage, the pupils would attempt answering the same questions again as Post test. Altogether, the marks of the 3 pre tests and 3 post tests were recorded for the 3 sub-units of the comprehension passage. The mean percentage of each test was calculated to determine the outcome of the class's performance. The results were shown in the table below.

Teachers who involved in this project also met to provide feedback on the pupils' learning interest and attitudes towards this learning style and the response on the activities were also gathered from selected pupils.

ANALYSIS OF RESULTS

Based on the results collected, there were improvements for all the post-tests conducted. The mean percentage of each post test was higher than the mean percentage of the pre-test given. It was noted that pupils were able to retrieve answers

or key words from the Mind Map when answering the questions correctly.

Class	No	1 st Pre-test	1 st Post-test	2 nd Pre-test	2 nd Post-test	3 rd Pre-test	3 rd Post-test
		Unit 6.2 Mean %		Unit 6.4 Mean %		Unit 7.4 Mean %	
Class 1	33	37.3	64.6	41.5	68.8	51.1	78.8
Class 2	34	53.2	80.0	35.7	77.1	68.5	91.6

During the group work activities, pupils were monitored in their interaction and classroom involvement. The pupils were given the opportunities to discuss, organize the information and located for key words to be presented in each of the branches.

REFLECTIONS

Teachers

The introduction of Mind Map in teaching in this project has given us an opportunity to try out different teaching strategy to help our pupils who are weak in attempting comprehension questions in Chinese Language. Based on the positive results shown taken during the experiment, it had provided us with more confidence in using Mind Map to teach comprehension skills in this subject.

Initially, we realized that mind mapping is not necessarily suitable for all passages. Teachers had to skim through the passages in the textbooks to select passages of their level of understanding and not too many difficult vocabulary words for teaching before selecting 3 suitable passages and created our Mind Map using PowerPoint. Questions were set to test the pupils' ability to comprehend the passage in the pre and post tests. We reviewed their answers in the pre-test and noted the areas that the pupils were weak in. We highlighted and discussed with the pupils the areas of concern in the mind map that teachers prepared. Our confidence was boosted when we saw an improvement in the overall results of the first post- test.

By incorporating mind mapping in teaching of comprehension skills, the teachers

could firstly, clearly show the relationship of the various characters of the passage. Secondly, it showed the cause and effect of each action taken by the characters in the passage. Third, it helps to categorize the information mentioned in the passage. As the saying goes, picture speaks a thousand words, by mapping out the contents of the passage; it had helped pupils to overcome the phobia of lengthy passages and raised their ability in comprehending the contents of a passage.

Pupils

Mind mapping is done on a group basis. Pupils were divided into group of 5-6. Each group consisted of mixed-ability pupils. The pupils sat for a pre-test and after which the mind map was introduced. The pupils were required to organize the information in the passage using the mind-map template provided. The pupils showed better understanding as they were able to see the relationship of the content visually and search for keywords in an answer to a question.

In such group work, the more reserved pupils were provided the opportunity to learn from their peers in a more comfortable environment while the rest generally showed eagerness, making the classroom environment livelier. The pupils found the mind map useful in organizing information and more straightforward in helping them in comprehending the passage. Pupils who interviewed also said that the visual pictures will help to understand the passage better and they found now easily to answer the comprehension questions using the Mind Map. Pupils also feedback that they were able to remember the important information of the passage better.

DISCUSSION AND RECOMMENDATIONS

1) This project was carried out a period of 10 weeks. Though there were improvements shown for all the 3 post tests, teachers felt that the results of the

Semestral Assessment at the end of the year should be collected to have a more accurate feedback on the general outcome of this teaching strategy.

2) Due to the time constraint, the Mind Map activities were done as a group effort. Each group was made up of different ability pupils. Pupils with higher language ability tend to head the discussion and pupils who were more shy to speak up would normally end up become the listener. Teachers often need to go around to encourage them to participate more actively in the discussion. It was found that the results improvement for these weak pupils were lower than pupils who were more involved or strong foundation in the subject. The experiments would be more accurate if all pupils to perform the Mind Map activities individually.

CONCLUSIONS

This strategy of using Mind Map of arranging the information in a single web display form has helped pupils to show the key points and illuminate the relationship to enhance comprehension. Pupils were found to be better understanding passage and remember the content of the passage better.

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