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THE IMPACT OF THINKING SKILLS AND MIND MAPPING ON READING WITH REFERENCE TO GOVERNMENT COLLEGE STUDENTS

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ABSTRACT

Task- based language teaching (TBLT), is one of the significant methods in the second language learning context. This paper makes use of TBLT, particularly with regard to Tasks using thinking skills and mind mapping. Thinking skills and mind mapping refer to the learner's comprehending ability in the way he/she wants in order to comprehend the reading material in a particular pattern/method and reflect on the same. In fact, it refers to the Meta cognitive strategies used by the learners. The biggest advantage is that the mindset of the learner is tuned, in such a way that he/she, not only comprehends the item to be learned, but is able to reproduce it (this is the result of his/her metacognitive strategy and retention capacity). Hence, in this context, a study with a small group of ESL learners from one of the government colleges of Tamilnadu was chosen to prove the hypothesis. So this paper studies the impact of thinking skills and mind mapping as the students worked with you tube based Tasks. The central concept of the paper is to evaluate the impact of higher order thinking skills using mind mapping technique. The scores of the learners on their reading comprehension prove that there is a significant difference, between the two groups of students, selected for the study.

Keywords: Reading, Task- based teaching, Thinking skills, Meta cognitive strategies, comprehension, mind mapping

INTRODUCTION

Task -based language teaching gives importance to different types of tasks and their learning input. This paper makes use of thinking skills and mind mapping as a central concept. Mind mapping is an organizational technique, which allows individuals to organize facts and thoughts in a map format containing a "central image". He also says that it is nothing but the main themes radiating from the central image, branches with key images and key words forming a connected nodal structure" (Buzan, 1993).

There are several empirical research papers which highlight the impact of thinking skills and mind mapping in second language reading context. Yet there is not enough evidence to show the relationship between thinking skills, mind mapping and language proficiency in L2 reading. It is assumed that the thinking skills and mind mapping fasten the rate of student involvement, which in turn results in the improvement of students' performance. It is also assumed that the students gain opportunities to concentrate on meaning, and form in a easy way, making use of certain type of pattern in the mind.

Hence, the present study makes use of thinking skills and mind mapping as a central concept to examine the effectiveness of reading comprehension of the ESL learners through you tube video based input.

SIGNIFICANCE OF THE STUDY

Though there are a number of studies on thinking skills and mind mapping in the global context, very few studies were done in the south Indian context, particularly in the District of Thanjavur. Not even single study pertaining to thinking skills and mind mapping among the Government Colleges has been done previously. Therefore this study concentrates on Government College students and it attempts to improve their reading comprehension through the said concept.

STUDENTS PROFILE

年 2023 體積 51 問題 1 **DOI:** 10.46121/pspc.51.1.1

Power System Protection and Control

A group of twelve ESL students, majoring in Chemistry were chosen from Rajah Serfoji Government College, Thanjavur. They were from typical rural background and they did not have sufficient exposure to use English. Their comprehension level with regard to reading in L2 is somewhat mediocre.

THE RESEARCH QUESTION

How does Thinking skills and mind mapping influence the reading skills of L2 learners, who study in the government college environment?

METHODOLOGY

At the outset, 2nd year Chemistry students from Rajah Serfoji Government college were met, and introduced about the study, and volunteers who wanted to participate in the study were selected. They were given student profile cards, to get basic information about the individual participant. (Roll numbers, branch, Name of the college, age, etc) Once it was filled in, they were told about the contact hours, scheduled for them. In the next scheduled hour, they were given a baseline test. It included a cloze passage and reading comprehension passage. After this their performance was evaluated. According to their calibre they were put in two groups namely A (Experimental group) and B (Control group). In the next contact hour, the experimental group of students was given training on thinking skills and mind mapping. After this you tube video based tasks on a variety of interesting topics (that runs roughly about 3 to 5 minutes) were given for them to work with.

Once they finished watching, the same video was played, if necessary. Then they were given worksheets containing passages and comprehension questions, corresponding to the video, they had watched. Simultaneously they were supported with rough worksheets to note down the important points in the way they wanted to remember about the video. This was followed by a comprehension test, which consisted of ten questions per passage and their work sheets were received for evaluation.

On the other hand the control group of students was not given training on mind mapping. They were shown video clippings and based on that a reading comprehension test was conducted, with a help of worksheets containing passages and comprehension questions. Besides they were given assistance in terms of glossary and helpful phrases and idioms. They were given sufficient time, to complete the worksheets and the worksheets were received for evaluation.

The testing time, conditions, criteria for assessment were similar for both the groups of students.

CRITERIA FOR EVALUATION

To analyze the ESL students' reading comprehension, a specific criteria were developed. (i.e., Reading speed, Analytical/ Critical Insight, & Overall Comprehension).

This study makes use of descriptive statistics to evaluate the results obtained.

RESULTS

Table 1: Control Group

S.N o	Rol I No	Voc abu lary Lev el (Ma	Ana lyti cal/ Crit ical Insi	Ove rall Co mpr ehe nsio	Tot al (ma x: 30)
1	18CT1433	5	2	6	13
2	18CT1438	4	3	4	11
3	18CT1446	2	5	5	12
4	18CT1414	4	6	3	13
5	18CT1409	3	4	5	12
6	18CT1403	3	3	4	10

Table 2: Experimental Group

S.No Roll No Vocabu lary Level (Max: 10 marks)	Analyti cal/ Critical Insight (Max: 10mark A Overall Compre hension (Max: 10 marks)	Total (max: 30)
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年 2023 體積 51 問題 1 **DOI:** 10.46121/pspc.51.1.1 2

Power System Protection and Control

1	18CT1440	9	9	9	27
2	18CT1443	8	7	9	24
3	18CT1423	9	9	9	27
4	18CT1444	6	8	8	22
5	18CT1421	8	9	10	27
6	18CT1418	10	7	8	25

DISCUSSION

There is a significant difference between the control and the experimental group of students. Overall, the experimental group of students' performance was better than the control group students. As pointed out by Williams (1999) Mind mapping provided students with an opportunity to improve their learning. Interestingly, the students who used mind mapping strategies and watched You Tube videos, had performed well. Invariably all their answers were accurate and to the point. This is an obvious fact that mind mapping strategies have helped them a great deal, to comprehend the video input and answer the comprehension questions. Their reading speed was also good. (i.e an indication of their comprehension) whereas the scores of the control group of students were mediocre. This shows that their answers to the comprehension questions highlighted their weakness in terms of reading comprehension. An important point to be noted in this context is that both the groups were homogenous with regard to their proficiency in reading comprehension (i.e., their scores in the baseline test were almost similar).

The experimental group of students was able to correlate the reading comprehension passage with the video input with the help of mind mapping techniques and noted the points in the rough worksheets. This was possible as they were able to make use of higher order thinking skills. The experimental group students answers were accurate and to the point. Whereas, the control group students answers were not up to the mark. Additionally, the rough worksheets, in which the experimental students noted down points as they thought in a particular pattern (so as to remember) helped them a great deal as they were previously well laid out in the minds of the students. Besides, they enjoyed the task and showed a lot of interest. Taliaferro (1998) determined that students enjoyed the mind-mapping exercise. Negative results of the study were students" level of cognitive development. Students were not able to "think abstractly".

In contrast, the worksheets of the control group, were not so accurate, as that of the experimental group of students simply because they neither used mind mapping nor used any other techniques to answer the comprehension questions based on the video input. Besides, the reading speed was also very low. (an indication that their comprehension was poor)

LIMITATIONS

It was limited to a single task and it was limited to a few samples. Hence it cannot be generalized. It was done with a homogeneous group. It was also limited to a government college in the District of Thanjavur.

CONCLUSION

Thus, the results of the study prove the fact that using mind mapping as a higher order thinking skill and using interesting you tube video clippings among the Government college students do have a significant impact on their reading comprehension. Further, the study gives the following recommendations, the same task and mind mapping techniques with a different type of modifications or combinations could be used to improve upon the other skills like speaking and listening.

REFERENCES

1. Buzan, T. (1993). The mind map book: How to use radiant thinking to maximize your brain's untapped potential. New York, NY: Penguin Group.

年 2023 體積 51 問題 1 **DOI:** 10.46121/pspc.51.1.1 3

Power System Protection and Control

- 2. Taliaferro, M. (1998). Mindmapping effects on sixth grade students' recall ability. Unpublished master's thesis, Mercer University, Atlanta, Georgia.
- 3. Williams, M.H. (1999). The effects of a brain-based learning strategy, mind mapping, on achievement of adults in a training environment with consideration to learning styles and brain hemisphericity. Unpublished doctoral dissertation, University of North Texas, Dissertation Abstracts International, 60, 1525.

年 2023 體積 51 問題 1 **DOI:** 10.46121/pspc.51.1.1