

Mind Mapping: An Effective Teaching Learning Evaluation Tool in Engineering Education.

J. S. Awati¹ and ¹Dr. Seema S. Desai, ²SuvarnaTope²

¹ ETC and MBA Department, RIT, Sakharale, ²D.Y.Patil Polytechnic, Kolhapur.

¹*jayashree.awati@ritindia.edu* and ¹*seema.desai@ritindia.edu*, *suvarnatone@gmail.com*

Abstract:

Active and collaborative Teaching – Learning activities are practiced in outcome based education system. Mind mapping tool is a creative tool, which keeps students engaged and simultaneously active knowledge representation materialize. Mind mapping also helps teachers to evaluate effectively the students' knowledge gain. The Mind Mapping activity was conducted for Final year students of ETC Department, RIT. The results are verified statistically and the outcomes are measured through rubrics.

Keywords: Mind Mapping, Evaluation Tool, Rubrics, teaching.

1. Introduction

In recent scenario, it is observed that it becomes very difficult for a teacher to handle large classroom of 60 to 70 students to understand their knowledge gain. Hence the use of mind mapping enables the teacher as well as the students to gain a simplified method of teaching – learning resulting to a win-win situation for both the parties. This technique brings out the creativity and productivity of the students. It is noticed that mind mapping supports the teachers to evaluate the learning gained by the students within a very short duration. For this activity, it is very important that the question framing should be focusing on deep learning and bounded to the course. As well as the faculty should take, care to design rubrics in a well-framed manner. Hence, we can conclude that Mind mapping helps both course owners as well as the students to gain quick review of whole course within a very short span of course material.

1.1. Objectives:

- Promote active and collaborative teaching, learning tool
- Engage students with fun learning.
- Promote rubric evaluation of learning

2. Literature review

Omue Kizilgol, Burcu Isguden Kilic, Hasan Abdioglu, (2016) In the paper titled - The effects of using the concept mapping and the traditional method on the academic achievement of students in learning the fundamental topics of cost accounting the authors have made a study on the comparison of the effects of using the concept mapping and the traditional method on the academic achievement of students in learning the fundamental topics of cost accounting. Also the author opined that the knowledge gained through concept mapping make students learn in a very ambitious and consistent manner.

Shraddha, Raghvendra, Nikita, Nalini, Ajit (2015) The authors in their study on Mind mapping: An useful technique for effective learning in large classroom, have opined that the Mind mapping technique proves to be very efficient and effective for the ability of the student for interactive learning to improve retention and reduce revision time. The authors have specified that the major important positive outcome of the experiment is that maximum number of students have clearly indicated that this technique has given them a very good opportunity to evaluate, work on and improve their ability for interactive learning.

Bang Khanh Nong, Tuan Anh Pham, Thy Nu Mai Tran (2016) in the study on the topic "Integrate the Digital Mind mapping into Teaching and Learning Psychology" authors have studied about the difference between digital mind mapping over paper-based mind mapping and conventional teaching method on students academic achievement and attitudes in teaching and learning also its effects are studied herewith. The authors in this paper are of the opinion that there is a noteworthy difference in the academic achievement of students' as well as the attitudes towards learning is positive through the computer-based teaching and learning mind mapping method.

Joanne Broggy, George McClelland, (2009) The paper titled - Integrating concept mapping into higher education: A case study with physics education students in an Iris University, attempts to map the students engaged in meaningful learning. According to the authors, the study suggests that Concept Mapping can serve as a valuable tool in physics education by helping students to understand the complex concepts in a more better manner, link themselves to new knowledge and represent their understanding of those complex concepts in a easy way.

Cui Jingjing (2016) In this paper titled - The application of mind mapping in foreign language teaching advances in social science, education and humanities research, the author through his study is of the opinion that Foreign language learner's thinking ability can be enhanced by mind mapping, as well as stimulate the learner's association to think out of box. According to the authors, mind mapping "classroom - based" teaching model can encourage the development of students' divergent thinking ability and the formation of a new teaching and learning strategy.

Shaimaa Salah Abbas, Ahmed Sharaf Eldin, Adel Elsayed, (2018) The authors of the paper titled - The effect