

TO ENCOURAGE SHARING OF EXPERIENCE AND THE DEVELOPMENT OF ACTIVE METHODS OF TEACHING AND LEARNING

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Introduction

When human civilization starts to take filling on science and knowledge, we almost forgot our ancient civilization. But is it possible? When are human nation who are sharing from ancient civilization until the present days. Experience is a subject which position is unlimited to human nation. We have passed more and more path and time until today.

1. Why Active Learning Methods?

Active learning as described by educational researchers is based on the basic assumptions that learning is an active process and that different people learn in different ways. Mayers and Jones(1) recognize that two corollaries stem from these assumptions : Students learn best when learning process is achieved by doing and that any one teaching approach often fail to get through to significant number of students. Kolb's learning style inventory (Kolb 2) also reassures that "doing" plays a major role in the learning role in the learning cycle.

Thus, lectures can be more effective when they are punctuated with brief active learning exercises. The role of conventional lectures as well as the information processing during lectures pose several questions (Beasley 3), Johnstone and Su (4). Active learning methods for teaching the subject under consideration are primarily driven by the following:

1.1 Motivate students to learn to appreciate mathematics for problem solving:

Brief active learning exercises are proposed for providing motivation for the students to enjoy mathematics and establish a strong correlation with the physical processes they investigate. Many researchers have commented the seriousness of this issue (see,e.g., Stice 5). In order for the students to apply the concepts they learn to problems that they have not encountered before, it is essential that a strong foundation in developing important concepts be provided to students. "What matters is not just what students know but what they can do with what they know"

1.2 Students with diverse learning, cognitive, and motivational styles:

In the recent past, diversity in student population has significantly increased. There is an appreciable dynamics stream and also when they complete their degrees. Then, the following important question was posed: can these principles and their application be demonstrated as part of the lecture / tutorial by (a) Simple physical Models (b) Numerical Experiments and Animation using MECHANICA motion / Matlab/ Simulink/ Maple / Other High level Language or (c) Practical Examples via videos. In order to maximize knowledge transfer as well as retention, introduction of “show and tell” sessions to be performed by groups of students was proposed.

It was considered that the topics must also offer a variety in modes of presentation and concepts to suit the interest of a particular group. This was thought to be essential for the success of completion of a demo. Topics were discussed during week#2 and were assigned based on students’ choice (using an order of preference). In cases where more than one group indicated liking on one project, lecturer made an arbitrary decision. A change of mode of presentation was also allowed if the students could justify that another mode was more suitable for demonstration of a particular topic. It was thought to be important since choice of the most suitable demo was desirable.

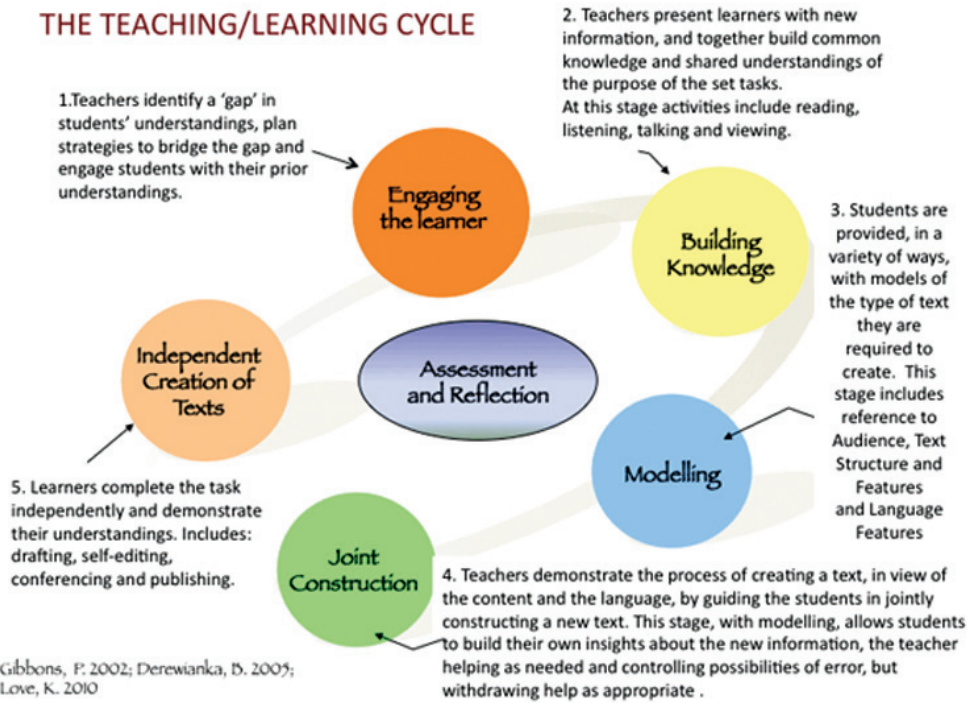
Style of teaching

Actually we understand all that active methods of teaching are prepare results of learning knowledge deeply summary of subjects. Active methods of teaching are a little bit separate for this reason we don’t need describing. So, we can understand in simple that we shouldn’t depend on a simple idea and it should be know a whole subject.

Student Feedback

Student Feedback was considered to be an essential part of the project to bring out the important aspects of this project. Three different modes were used for this purpose. First approach made use of a lecturer designed feedback sheet. As described earlier, four groups performed MECHANICA simulations, four groups built physical models, three groups prepared videos while only one group was involved with MAPLE simulation. Hence, to make any meaningful judgments, data for the MAPLE group cannot be considered seriously due to its small sample size. The second approach used journals that were written by students on chosen days when the demos took place while the third approach used the traditional TEVAL form at the end of the semester. This form enabled meaningful comparison with results obtained for this subject during previous years in the absence of any active learning element.

THE TEACHING/LEARNING CYCLE



Conclusion

In the end of conclusion I can say that when a student or an eager person will achieve knowledge on any one subject by good experience through teaching, he / she will understand about that subject completely. Whenever a person will do teaching properly and he/ she will learn full subject, a person can do share his/her experience. If we can share his/her experience, I think that it is perfect time of sharing experience. Because that time he/she will get pleasure himself /herself and he/ she will be more inspire to teach. That education is development of the active method of learning. It is quality of teaching. So everyone should share experience.

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