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Innovative Teaching Methods in Secondary Education

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Abstract:

Innovation is the development of new customers' value through solutions that meet new needs, inarticulate needs. The main purpose of this paper is to find out if the use of innovative teaching and learning approaches (including multimedia and web-enhanced systems) contribute to students' learning and success in the assessments. The presented method of teaching and learning has resulted in allowing an opportunity for the average student to learn a relatively advanced topic successfully. The creation of new understanding is the aim of education which can not come without innovative in teaching.

Key words: innovative in teaching, customers value, Methods of teaching, Innovative tools.

INTRODUCTION

The method by which an idea or invention is translated into a good or service for which people will pay, or something that results from this process. Innovation is source of all kinds of creativity. Innovation is the development of new customers' value through solutions that meet new needs, inarticulate needs, or old customer and market needs in new ways. This is accomplished through different or more effective products, processes, services, technologies, or ideas that are readily available to markets, governments, and society. Innovation differs from invention in that innovation refers to the use of a

better and, as a result, novel idea or method, whereas invention refers more directly to the creation of the idea or method itself. Innovation differs from improvement in that innovation refers to the notion of doing something different (Lat. innovare: "to change") rather than doing the same thing better.

Methods of teaching? Webster gives several definitions of "teaching", among them the following: "To show; guide; direct; to make to know how; show how; to direct as an instructor; to guide the studies of, or to conduct through a course of studies; to impart the knowledge of'. These are definitions of teaching, which we all know and accept. But the definition of "methods" is a little more difficult. Webster defines "method" as: "An orderly procedure or process; regular way or manner of doing anything." In an educational sense, method is "a systematic plan adopted in presenting instructional material; as, the lecture method; a method of teaching". "Method is commonly a special or definite system of procedure".

Rigorous analysis of completed or ongoing activities that determine or support management accountability, effectiveness, and efficiency. Evaluation of completed activities is called ex-post evaluation, post-hoc evaluation, or summative evaluation. Evaluation of current or on -going activities is called in-term evaluation.

INNOVATIVE METHODS OF TEACHING

Education is a light that shows the mankind the right direction to surge. If education fails to inculcate self-discipline and commitment to achieve in the minds of student, it is not their fault. We have to convert education into a sport and learning process has to generate interest in the-students and motivate them to stay back in the institution than to run away from it. Education should become a fun and thrill to them rather than burden and boredom. It is an integral part of their growth and helps them become good citizens.

Education is an engine for the growth and progress of any society. It not only imparts knowledge, skills and inculcates values, but I also responsible for building human capital which breeds, drives and sets technological innovation and economic growth In today's era, information and knowledge stand out as very important and critical input for growth and survival. Rather than looking at education simply as a means of achieving social upliftment, the society must view education also as an engine of advancement in an information era propelled by its wheels of knowledge and research leading to development.

INNOVATIVE TOOLS

Multimedia, is the combination of various digital media types such as text, images, audio and video, into an integrated multi-sensory interactive application or presentation to convey information to an audience. Traditional educational approaches have resulted in a mismatch between what is taught to the students and what the industry needs. As such, many institutions are moving towards problem based learning as a solution to producing graduates who are creative; think critically and analytically, to solve problems. In this paper, we focus on using multimedia technology as an innovative teaching and learning strategy in a problem- based learning environment by giving the students a multimedia project to train them in this skill set.Currently, many institutions are moving towards problem-based learning as a solution to producing graduates who are creative and can think critically. analytically and solve problems. Since knowledge is no longer an end but a means to creating better problem solvers and encourage lifelong learning. Problem-based learning is becoming increasingly popular in educational institutions as a tool to address the inadequacies of traditional teaching. Since these traditional approaches do not encourage students to question what they have learnt or to associate with previously

acquired knowledge (Teo & Wang. 2000), problem-based learning is seen as an innovative measure to encourage students to learn how to learn via real-life problems (Boud & Feletti, 1999).

The teacher uses multimedia to modify the contents of the material. It will help the teacher to represent in a more meaningful way, using different media elements. These media elements can be converted into digital form, modified and customized for the final presentation. By incorporating digital media elements into the project, the students are able to learn better since they use multiple sensory modalities, which would make them more motivated to pay more attention to the information presented and retain the information better.

1. Multimedia Elements

Creating multimedia projects is both challenging and exciting. Fortunately, there are many multimedia technologies that are available for developers to create these innovative and interactive multimedia applications (Vaughan, 1998). These technologies include Adobe Photos hop and Premier to create edit graphics and video files respectively, Sound Forge and 3D Studio Max to create and/or edit sound and animation files, respectively. They can also use an authoring tool such as Macromedia Director or Authorware to integrate and synchronise all these media elements into one final application, add interactive features, and package the application into a distributable format for the end-user.

Another advantage of creating multimedia projects in the classroom setting is that when students create multimedia projects, they tend to do this in a group environment. By working in a group the students would have to ‘earn to work cooperatively and collaboratively using their group skills and a variety of activities to accomplish the project s overall objectives.

The researchers suggest some of the methods can very well be applied by the modem teachers as the researchers feel

that basically the core objective of teaching should never be deviated by the use of an innovative method. The following methods which are suggested are an extension to the traditional methods of teaching.

2. Mind Map

Mind maps were developed in the late 60s by Tony Buzan as a way of helping students make notes that used only key words and images, but mind map can be used by teachers to explain concepts in an innovative way. They are much quicker to make and much easier to remember and review because of their visual quality. The nonlinear nature of mind maps makes it easy to Link and cross-reference different elements of the map.

Mind Maps are also very quick to review, as it is easy to refresh information in your mind just by glancing once. Mind Maps can also be effective mnemonics and remembering their shape and structure can provide the cues necessary to remember the information within it They engage much more of the brain in the process of assimilating and connecting facts than conventional notes.

The key notion behind mind mapping is that we learn and remember more effectively by using the full range of visual and sensory tools at our disposal. Pictures, music, color, even touch and smell playa part in our learning armory will help to recollect information for long time. The key is to build up mind maps that make the most of these things building on our own creativity, thinking and cross linking between ideas that exist in our own minds.As the recent research point that any particular information explained with the help of graph charts make a high impact in the minds of the people and keeping this as the core aspect the teachers may try to picturize the concepts and show the same to the students.

3. Teaching with Sense of Humour "Humour an Effective Medium of Teaching"

Everyone loves a teacher with an infectious sense of humor. Looking at the lighter side of life not only fosters cordial relations between professors and students, but also provides welcome relief while trying to follow a difficult lecture on a complicated subject When there is a willingness to change, there is hope for progress in any field. Teaching is a challenge. Learning is a challenge. Combining both effectively is a challenge. Being humorous is a challenge. However, laughing is easy. We are convinced both by experience and research that using humour in teaching is a very effective tool for both the teacher and student.

Humor strengthens the relationship between student and teacher, reduces stress, makes a course more interesting and if relevant to the subject, may even enhance recall of the material. Humor has the ability to relax people, reduce tension, and thereby create an atmosphere conducive for learning and communication. Numerous studies in the field of advertising have noted that humor is the most effective tool for enhancing recall of advertisements.

It is easy to create a humor in the classroom by reading books of jokes and to listen to professional comics. The students should be encouraged to take notes, especially to learn about the professionals' use of such techniques as exaggeration, pauses, and timing. Observe reality and exaggerate it - much humor lies in observations about real life and truthful situations. In conclusion, humor not only plays an important role in the healing process but is also very important in education.

4. Z to A Approach

This approach attempts to explain the application part of a particular concept first. The teacher should explain the application of a particular concept first and explain the effects of such applications. For example in management subject

motivation is explained in a manner that the organization get extensive benefits out of using some techniques like promotions and awards. So here the use of promotion is explained first and later students would get interest in knowing what are promotions and awards. The teacher starts explaining what is promotion and explains what motivation theory in management is. Another example we can try is that in accounting the Income statement and Balance Sheet can be explained first and later drawing their attention to double entry system of book keeping.

Weaknesses

- Take quite long time for a teacher to introduce a concept
- Initial difficulty in understanding a particular concept will be encountered

Strengths

- Makes a particular concept clear
- Students develop interest to know exactly the concept.
- Creates long lasting memory/correlation of a concept.

5. Mnemonics Words — Words — Words Approach

Here the teacher is not supposed to talk on a particular concept for a quite long time. But to make it clear to the students he can just go on saying mnemonics or its associated meaning in words. Here he goes on saying only words instead of sentence, and once they come to a basic understanding of the meaning of a particular concept then the teacher will explain in sentences. For example in teaching language courses this technique can be used as an effective medium by the teacher to develop word power.

- Dictionary must be used widely
- Word power increases
- Teacher also gets to know many words pertaining to a particular concept.

6. Role Playing and Scenario Analysis based Teaching

Role playing and scenario analysis is mostly used in organizations that try to analyze a problem pertaining to the organization, and this is also used in management institutions. But the similar kind of practice can be tried in other specialization too like science and engineering. Science and engineering courses have practical but in support of those practical if students are given a scenario and other options to solve a particular issue, then the students are exposed to decision making in a given environment.

For example, in teaching accounting the role of accountant can be explained by role playing technique. Invoice and bills can be given to students and asked them to assume the role of accountant. Here the real entries pertaining to transactions are made by the student and this is more practical approach to teaching where theory is supplemented by proper practical knowledge. Similar kind of technique can be applied in management, engineering and science courses.

CONCLUSION

Across the world, information technology is dramatically altering the way students; faculty and staff learn and work. Internet-ready phones, handheld computers, digital cameras, and MP3 players are revolutionizing the college life. As the demand for technology continues to rise, colleges and universities are moving all sorts of student services, from laundry monitoring to snack delivery online. At Columbia University, a real-time Web-based service called. Laundry View lets students log on to a Web- based system to see which washing machines are free before they head to the laundry room. They can monitor their wash and can even program the service to e-mail them when their load is done. Technology is also changing the classroom experience. The classrooms at New York University's Leonard N Stem School of Business feature all sorts of conveniences for students and teachers. For

instance, the room is wired with cameras for photographing whiteboards, so students can receive the images as digital files. In addition, tablet PCs, compact computers that allow you to write notes directly onto the screen with a special pen, replace the archaic projector. With the tablet technology allow professors to make notes on charts and spreadsheets and send them directly to their-students' PCs and he will get a feed back from each student.

From the above, we can-make out that the Information and communication technology has made many innovations in the field of teaching and also made a drastic change from the old paradigm of teaching and learning. In the new paradigm of learning, the role of student is more important than teachers. The concepts of paperless and penless classroom are emerging as an alternative to the old teaching learning method. Nowadays there is democratization of knowledge and the role of the teacher is changing to that of facilitator. In the late 90s when the multimedia system was used for the first time, well over 95 achieved satisfactory results. The Cut-off for, grades were about 10 to 15 percent higher than the previous years too. These achievements and performances support the hypothesis that by adopting innovative ideas more students will be able to cross the bridge and learn advanced topics in mathematics in an enjoyable manner. A higher participation rate in the assessments indicates that the problem of the fear of mathematics has also been addressed. The positive responses of the students also demonstrate that the multimedia extension is an-effective means of reinforcing the learning process, particularly for those students who are not able to take advantage of the traditional (face-to-face) mode of delivery.

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