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Innovative and Best Practices in Teaching, Learning

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Abstract: *The biggest challenge for current education system is to use technology blended teaching in a innovative way. As per current advancement in technology the teachers should be well acquainted to integrate technology in teaching and learning along with traditional way of teaching. New technology helps students to observe and understand the topic in a much easier way. All streams of education have now ingress of technology and now it is the turn of teachers to make optimal utilization of technology to enhance the learning capacity of the students and groom the young minds to become good citizens and play a vital role in nation building. Now a days technology has reached everybody's home. It is the main component of infrastructural facilities that an institution should provide for teachers and student community for sustenance of quality education and make them competent enough to face global challenges.*

Keywords: Information and Communication Technology, Innovative Teaching, Tools for Learning, Apps

I. INTRODUCTION

Information and Communication Technology has become backbone of today's Education system. It provides numerous tools which facilitates the smooth function of the system with accuracy and transparency. Various tools of technology are used in the processes of administration, admission, teaching, learning, evaluation, research etc. Technology plays a vital role in teaching. Technology promotes and monitors quality education which is available for all levels of educators and learners. It provides tools that teachers can use in and out of the classroom to enhance student learning. There are many tools using which classroom teaching can be made more interesting and effective. Faculty can equip these user-friendly technology tools within short span of time. There are also numerous on-line resources about using technology to enhance teaching in several ways. ICT helps to enrich teaching capacity and effective learning. Technology blended teaching will help in perceptual and conceptual learning. It arouses interest and motivates students to learn. It is helpful to teach large number of students at a time.

II. INNOVATIVE TEACHING METHODS

Any teaching method without destroying the objective could be considered as innovative methods of teaching. The researchers believe that the core objective of teaching is an innovative practice could be a pathway created to further the interest of the student and the institution. The analysis reveals some of the suggestions that the teaching community can practice in the classrooms.

- Teaching with technology engages students with different kinds of stimuli- involve in activity-based learning. Technology makes material more interesting. It makes students and teachers more media literate and mostly suggested one is Multimedia
- Teachers can also consider Z to A approach as it explains the application part of a particular concept first, so students would get interest in what the actual concept is. This approach helps in creating long lasting memory or correlation of a concept
- Collaborative teaching, sometimes called cooperative teaching or team teaching also considered as an innovative teaching, it involves educators working in tandem to lead, instruct and mentor groups of students.
- There are many devices with the help of which one can teach effectively for e.g., Jigsaw, Role-Playings etc. are very effective in developing their linguistic competence. If this method is used properly, language learning becomes more interesting and easier.

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- Teachers can also use case study method for innovative teaching because case method is a powerful student-centered teaching strategy that can impart students with critical thinking, communication, and interpersonal skills.
- Teaching with sense of humor is also considered as an innovative method which makes students listen actively. Laughter is a natural, universal phenomenon, with beneficial effects, both physical and psychological.
- Teachers can use interactive boards and smart boards for teaching as it helps students experience a deeper level of engagement and understanding by making course content interactive and visual.
- Problem-Based Learning (PBL) is a teaching method in which complex real-world problems are used as the vehicle to promote student learning of concepts and principles as opposed to direct presentation of facts and concepts. In addition to course content, PBL can promote the development of critical thinking skills, problem-solving abilities, and communication skills
- Inquiry-based learning develops thinking and problem-solving skills. Instead of driving the class through a lecture-style format, the teacher poses questions, scenarios, and problems. Students then research these topics individually or in groups to formulate their answers. They can then present their findings and supporting evidence to the class along with the other students. Students are then able to further develop their answers by listening to what other students have found as well as identifying areas that require more attention and detail.
- Screencasts also emerged as a prominent teaching tool. Screencasts are an effective way to share ideas, deliver content, and obtain student feedback on the Internet. Screencasts can be used for describing a step by-step process, explaining a particular concept, or presenting a PowerPoint presentation with narration and multimedia elements.
- Blended learning combines physical and online learning experiences that give students more control over the time, place, path, and pace of instruction. Check out our previous post on blended learning to learn all you need to know. What's exciting about blended learning is that it provides traditional classroom experiences as well as online tools and learning opportunities. It's not an all-or-nothing method. Still, technology is a key component of blended learning as it is for students in the real world. The flexibility of blended learning enables students to have more control over their learning methods – perhaps they'll watch online lectures at home and engage in peer groups for collaborative activities or maybe they'll prefer to join lecture-based virtual classes and do their homework independently.
- Use of mnemonic words is also an innovative teaching method. 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/she can just go on saying mnemonics or its associated meaning in words.

III. INNOVATIVE LEARNING METHODS

- If learners are actively engaged with a task which they accept is for learning they are not simply follow a prescription or set of rules, but contribute their own thinking to the task.
- The flipped classroom is a learning environment that provides students with a variety of means to study basic knowledge content as part of homework and preparation for class meetings. The flipped classroom also contains homework assignments as asynchronous classroom preparation. Students may access the course materials as often as needed, and they can return to reflect upon the materials while building more difficult concepts later in their course.
- Another innovative teaching method is mind maps, which is a simple technique for drawing information in diagrams, instead of writing it in sentences. These are also very quick to review, as it is easy to refresh information in student's 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 student learns and remembers more effectively by using the full range of visual and sensory tools at his/her disposal.
- Experiential learning is any learning that supports students in applying their knowledge and conceptual understanding to real-world problems or authentic situations where the instructor directs and facilitates

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learning.

- MOOC a new learning method in Higher education. And it promotes active learning, where the learner watches videos and engages in interactive exercises.

Computational thinking is a powerful approach to thinking and problem solving. It involves breaking large problems down into smaller ones (decomposition), recognizing how these relate to problems that have been solved in the past (pattern recognition), setting aside unimportant details (abstraction), identifying and developing the steps that will be necessary to reach a solution (algorithms) and refining these steps (debugging). Such computational thinking skills can be valuable in many aspects of life, ranging from writing a recipe to share a favorite dish with friends, through planning a holiday or expedition, to deploying a scientific team to tackle a difficult challenge like an outbreak of disease. The aim is to teach children to structure problems so they can be solved. Computational thinking can be taught as part of mathematics, science and art or in other settings. The aim is not just to encourage children to be computer coders, but also to master an art of thinking that will enable them to tackle complex challenges in all aspects of their lives.

IV. CONCLUSION

Any innovative teaching and learning method is not a quick fix or universal remedy. It cannot replace a traditional teaching methodology in education but rather supports it. However it is clear from the literature, that innovative teaching methods do provide students with greater experience in dealing with the world of work related issues they encounter. Innovative teaching methodologies will lead to a learning society in which the creative and intellectual abilities of students will allow them to meet the goals of transformation and development. Where students claim to experience problems with assessment, the general argument is that the lecturers have not adequately explained what is required of them. Other student problems include excessive workloads and insufficient feedback. Lecturers need to consider these aspects when adopting any methodology. Given the constructivist nature of the PBL approach, there is a larger retention of knowledge and students enjoy their learning experience far more than in traditional approaches-course content is understood more thoroughly. Bauer et al (2008) found that students enjoyed the real world of work issues and teamwork aspect of PBL. They also and felt welcome in the classes and stated that their learning was enhanced as PBL augmented their ability to consider, evaluate, and respect diverse viewpoints. The use of the short-lecture, simulation and roleplaying, and the submission of individual student portfolios, undoubtedly support traditional methodologies and should also be utilised more. Education for the future requires that we explore as many varieties of models and teaching methodologies as possible. We need to remain cognisant of the culturally and other specific needs of our students and must not underestimate the influence of technology such as the internet in promoting quality teaching and learning and in enhancing education in general.

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