

INNOVATIVE METHODS OF TEACHING AND LEARNING FOR EDUCATION

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Abstract: Education is a process of facilitating learning of knowledge, skill values and habits. Basically teaching must include two major components sending and receiving information. Ultimately a teacher tries his best to impart knowledge as the way he understood it. The purpose of the education is not only to make the students literate but also to make them creative, knowledgeable, think of their own and to meet the workforce. The success of a student depends on the teacher and the innovative methods which they incorporate in teaching. The use of innovative methods in educational institutions has potential not only to improve education but also to empower people, strengthen governance and galvanize the effort to achieve the human development goal for the country

Keywords: Education, Teaching methods, Learning, Innovative techniques.

I. INTRODUCTION

Education is an important role in the growth of the students and today's world. The education not only makes the students to think and also increase their own creativity by the innovative methods of teaching. Innovation and creativity in teaching are essential for both the students and the teachers. Teaching has two important role viz., sending information and receiving information. The innovative methods not only improve the education system, also to achieve different goal of the students.

This study sought to determine the impact of the use of improvised instructional materials on student motivation to read; reinforcement of science concepts; and ability to link classroom content to improvised materials. Instructors, therefore, often wonder about how to enforce reading compliance. In contrast, most students spend a lot of time on social and news media than on their school work. Therefore, there is a need for educators to devise instructional approaches, preferably those that meet the students where they are in terms of level of knowledge. In addition, educators in both K-12 and higher education are aware of the inadequate resources at their disposal. And so, even in well-funded schools and higher education institutions, there is always a need for instructor creativity and improvisation to reinforce some concepts (Sithole *et al.*, 2016).

Mathematics was chosen as an object of study because it can be described as a common tool and the language used to define mental schemas throughout the world. Individuals who lack basic mathematical skills may face difficulties in school and social life; overcoming such difficulties requires the establishment of an effective learning environment. Reaching this goal depends on the employment of effective pedagogical methods; it is therefore essential to investigate different teaching methods—problem solving, inquiry based teaching, discovery, games, lecturing, and case studies, among others—and to draw attention to effective teaching and learning processes (Unal, 2017). Research based teaching, learning is used for increasing student thinking ability and own creativity they gathered new information used for higher education.

This paper focused on the effect of traditional methods of teaching as well as multimedia teaching and to suggest other teaching methods that can be attempted in imparting knowledge to the students.

II. METHODOLOGY

In ancient times, the traditional approach of teaching was considered as formal teaching method, it involves the direct flow of information from the teacher as sage to students as a receptacle. That was the time of 'guru-shishyaparampara' in India when classroom puts students at the centre. The effectiveness of this transmission has been tested by posing various exercises to the students (Derek and Collett, 2003). Use of modern ICT in teaching develops higher order skills such as collaborating across time and place, and solving complex real world problems (Bottino, 2003; Mason, 2000; Lim and Hang, 2003). On the other side Nickerson (1995) pointed out that technology does not promote understanding in and of itself, it is a tool that can help students view learning as a constructive process and use simulations to draw students' attention. It provides a supportive environment that is rich in resources, aids exploration, creates an

atmosphere in which ideas can be expressed freely, and provides encouragement when students make an effort to understand (DelMas, Garfield and Chance, 1999).

Traditional teaching methods

There are many arguments on whether or not traditional or modern teaching is better. Either way, schools are starting to get an earful from parents on how their child is learning. In traditional teaching, teacher's control what the students are doing. Students are putting pencil to paper instead of typing on computers. Teachers stand on the front of the classroom, give lectures and have the students take notes (Jayalaxmi, 2016).

Modern Teaching

Today globalization, accelerating technological change, massive demographic shifts or whatever heavy words you choose to describe the present situation, demands a change in education systems to more of the modern education format. Let's try to figure out what it is going to be like. Since new technologies appear at such a fast pace. Formal education in the first 20 years of life or the primary education as it is called will only form a foundation for future learning. Unlike our parents once passed out of college, we cannot stop and say "that would be all". Lifelong learning will become a necessity even though it's not a nice-to-have.

III. RESULT AND DISCUSSION

Education is a very powerful instrument for social change and transformation, and innovative teaching practice is the only way to enhance the quality of our education. The use of innovative methods in educational institutions has the potential not only to improve education, but also to develop creativity, empower people, strengthen governance and galvanize the effort to achieve the human development goal for the country.

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 the 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 interested in what the actual concept is. This approach helps in creating long lasting memories 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. 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 (Jayashree, 2017).

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 the 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. Mind mapping is a learning technique which uses a non-linear approach to learning that forces the learner to think and explore concepts using visuospatial relationships flowing from a central theme to peripheral branches which can be inter-related.

Experiential learning is any learning that supports students in applying their knowledge and conceptual understanding of real-world problems or authentic situations where the instructor directs and facilitates learning. MOOC a new learning method in Higher education. And it promotes active learning, where the learner watches videos and engages in interactive exercises (Jayashree, 2017).

Categories of Learning Styles

Auditory learner: Learns more effectively through the ear (hearing). This style resembles the verbal/linguistic intelligence that deals with language and words which are to be heard by our ears.

Visual learner: Learns more effectively through the eyes (seeing). Again this style resembles the visual/spatial intelligence which deals with what can be seen by the eyes.

Tactile Learner: Learns more effectively through hands-on experience (touch).

Kinesthetic learner: Learns more effectively through correct body experience (whole-body movement). This style resembles the bodily kinesthetic intelligence which involves using the body movement. This implies that, during the learning process, students, unconsciously, prefer to use some senses and neglect others. Some students, for example, prefer to hear or listen to the teacher while they are learning. In this case, their dominant learning style is the auditory learning style. As a result, these students prefer lecturing, as a teaching style, and tend to learn best when they listen to the speech delivered by the teacher. Consequently, they remember what has been said by the teacher in a very strong way.

Meta-cognitive Strategies: Planning, monitoring, and evaluating one's learning.

Cognitive Strategies: Making mental or physical images, grouping, taking notes.

Social/Affective Strategies: Interacting with others, co-operating, asking questions.

Teachers should provide students with various and different learning strategies so as to encourage them to learn and get more involved in the learning process. These strategies can help students to do difficult tasks which require learners to exert more effort (Kang, 1999).

Despite that the conventional methods of teaching have been more or less similar around the world; the adaptation of teaching strategies and styles to different social, economical and educational contexts has been always an issue for consideration. The tremendous growth of technology and computer applications affected almost every aspect of everyday life, worldwide. This is also the case in the field of education; the latter has changed dramatically by endorsing applications that help students improve their written and verbal abilities as well as help them develop new skills that broaden their potentials.

The respective literature suggests the use of a plethora of instruments, both conventional and modern, for the teaching of accounting courses internationally. Technology of information and communication are the new dominant tools for teaching such courses, effectively. This is in line with Beattie *et al* (1997) who for instance, argued for the importance of “in-depth learning” in any given academic subject as opposed to superficial knowledge or learning offered by different education providers, worldwide.

Traditional teaching methods including case studies, group quizzes, lectures and more recently collaborative teaching, homework, use of the blackboard and even more recently computer programs and other techniques like the pause method, allow student participation in lectures while providing them with the opportunity to select their own learning process. Modern teaching methods, on the other hand, including contemporary software programs, distance-learning and hybrid teaching methods aim for the same end (Bonner, 1999).

Hybrid teaching models include both traditional face-to-face interaction among students and teachers and alternative teaching methods. They seem to be quite popular, especially among female students (Dowling *et al.*, 2003). Such programs, which have been effectively applied in student populations are the Business Planning Model (Bersky and Catanach, 2005), which is based on case study simulations and the SCAM Accounting Program (Crawford *et al.*, 2011) based on real company data. Other hybrid teaching models applicable in the real business world are “Creating Financial Models and Calculation of costs by using Spread-sheet” (Beamen *et al.*, 2005) and “Teaching Through the use of Low-Income Taxpayer Clinics” (Anderson and Bauman, 2004) that seem to be useful as secondary learning tools (Belias Dimitrios, 2013).

INNOVATIVE TEACHING AND LEARNING OUTCOME

It is clear that technological advances have carried as improvement in the teaching and learning process. The students cognitive skills and their creative ideas can be developed by professional learning, ICT Teaching, Online interaction before, during and after class, Demonstration, Videos, Self-learning, Skill Communication, Group discussion, Problem solving teaching, Use digital tools and reusable learning objects, Smart board class rooms, Core qualities, Interactive approach, Critical thinking and analysis, Activity based, Experimental approaches to class design, Project based teaching learning, Research based teaching learning, Understand best practice and Special websites for teaching in the classroom. The students become very interested to learn with implementing these different types of teaching methods.

Different types of teaching methods:

Traditional Teaching			
Chalk and Talk	lecture	Discussion	Books

Cognitive Teaching			
Thinking	Discussion	Analysis	Evaluate

Hybrid Teaching			
Face to Face	online	Questionnaire	Mixed and independent

Effective Teaching			
Innovative	Interactive	Constrictive	Collaborative

Modern Teaching							
Lecture	Discussion	Interaction	Problem solving	Audio and video visual	Skill based	Different language	Globally collaborate

Research based teaching												
Set the goal	Explanation	Performance	New material	Practice	Concept	Understanding	Feed back	Flexibility	Technical equipment and practice	Connect globally	Learned different language	Reached achievement

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