

## 22. Modernization in Teaching Learning Process

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### 1. Introduction

An education system aims that the learner must be able to understand the concepts and he must be able to apply these concepts in solving practical problems existing in society. Meeting the demands of current society is becoming complex due to rapid changes in technology. So, education techniques are required to be amended to meet the social and technological demands. Indian institutes are changing the teaching methods from the conventional ones to the more advanced ones.

#### 1.1 Conventional teaching methods

A teaching method is the heart of an education system. It should be equal to all the learners of different caste, religion, gender and region. Conventional teaching methods include lecturing and face to face interaction in classroom. Lecturing method is based on one sided input i.e. from teacher. The teacher delivers the content to learner and learning level can be measured with the help of written examination. Whereas face to face interaction includes question answer sessions, in which

questions can be asked from either side

i.e. from teacher side or learner side, the discussion improve knowledge of both teachers and students. Unlike lecturing method, face to face interactions provide better understanding and create interest among learners.

## **1.2 Advanced teaching methods**

Advanced methods include visual aids, project method, story-telling or play-way methods.

1. Visual aids are used from primary schools to the higher education institutes in India. Examples of visual aids are charts, videos, and presentations. This technique is highly effective and captivates the interest of many learners. It provides life-long learning as it enables the learner to understand the concept by images and videos.
2. Story telling or play-way method is mainly used in primary and secondary education where morals are conveyed to learners by telling some story. Higher education institutes do not use this kind of method at larger scale. Some subjects which provides knowledge about societal responsibilities use this method.
3. Project method is mainly focused upon application of knowledge gained. This method is used in both primary education and higher education. This method not only urges the learner to understand the concept and also helps in dealing with the real problems.

## **2. Techniques to improve teaching practices in India**

Both conventional and advanced methods can be applied in classroom or they can be implemented outside classroom. It is necessary to enhance the quality of teaching which in turn provides improvement in learning. So, technology should be incorporated in teaching methodology.

### **2.1 Smart boards**

Traditional boards require chalks and marker pens to write on them. It consumes a lot of time, so less content is covered in given period of time for course. Also, it is difficult to draw complicated diagrams manually. These issues are well addressed by introduction of technology in the form of smart boards. With the help of images, videos and presentation, teacher can easily explain the complicated processes within few minutes. Learners can also understand the processes through images and videos of real components and systems. This also enhances the ability of learners to identify the particular system and deal with it in real world. Most of Indian higher education institutions have replaced conventional black/white boards with smart boards.

### **2.2 Internet**

Digitalization in India has made it possible to detour the teaching from classrooms to all over the world. It has shown the way to learners from rural areas to gain knowledge free of cost

and at their pace. Learners can gain knowledge from teachers present at global scale. It not only motivates the learners, but also provides time for some part time jobs.

### **2.3 E-classrooms**

E-classrooms are virtual classrooms that can be created by a teacher for any course and interested learners can join the class. It is nothing but teachers-learners group where teachers can give lecture, post notes, assignments and tests. Discussion time is not limited. Learners can post their doubts at any time. If a faculty utilizes e- classroom, he/she can give instructions, deliver more content in less time which results in augmentation of learning. This process also triggers the critical thinking and problem solving ability of learner which boosts his/her overall performance. As the lectures are available at all times, learner can retake the lecture any time and it is also easy for faculty to update course content.

### **2.4 Teaching- Learning Websites, blogs, Apps and Massive open online courses**

There are many websites and apps which provide information relative to a particular course or many courses. Teachers can also create their own website or blog and share their knowledge. Not only teaching, assessments can also be conducted online. The learners can also post their doubts or questions related to any subject, which can be answered by any

of the person having knowledge about it. Liberty in sharing of knowledge enable learners to work on any subject. In addition to classroom courses, they can take any course online, this enhances the scope of getting jobs in multiple fields. Learners can gain knowledge and apply it in doing complex projects which need knowledge of more than one field. National Program on Enhanced Learning is one such website which is widely used all over India. It contains the course content in the form of both notes and video lectures. Learners can take lectures free of cost and enhance their knowledge. Swayam digital is another example of online learning. It is global public platform for both teachers and learners. Any faculty can create his/her course and upload it and interested learners can take the course. Many such platforms exists like Coursera and edX which gives various courses.

## **2.5 Use of Software Tools**

Use of software tools in preparing and delivering the content helps in improving the overall teaching learning process. For example, Prezi helps in adding audio to the presentations and images. It can also animate presentations. Auto Cad is another software tool which allows the user to make a model of any system and it can also project three dimensional views of a component. View of any component from all side helps in understanding the system better from each angle. This software can be used to deliver the content in simple and professional manner.