

UPSKILLING OF TEACHERS TO PERFORM EFFECTIVELY IN VIRTUAL MODE OF TEACHING

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Abstract

With the online mode of teaching becoming the new normal, students have become smart learners through online learning platforms. Teachers also need to equip themselves to work smart and utilize technology to realize the educational goals. This paper deals with digital age pedagogy, its triggers, its key elements, and instructional strategies which help teachers achieve full potential of information technology in their regular class routines.

Index Terms – Online Learning Platforms, Flipped Classroom, Instructional strategies.

I. INTRODUCTION

Online learning has become the new normal of any educational institution, whether a school or college, primary and high school, or higher education. Everybody is bound to acquaint with these standard operating procedures. This requires not only expertise in the subject but also technological skills. In this regard, we need to gear up to generate multi-disciplinary and multi-skilled graduates; build an efficient and enabling ecosystem for teachers; global benchmarking of Indian higher education; bridge the gap between general and vocational education. Thus, manpower planning and skills development are the strategies to address these issues.

This paper deals with digital age pedagogy, its triggers, its key elements, and instructional strategies which help teachers achieve full potential of information technology in their regular class routines.

II. NEW PEDAGOGY

New pedagogy is emerging in this electronic age and especially during pandemic, it has become the new normal. Teachers are exploring online mode of teaching with respect to its implementation from all dimensions. The various aspects are resources, preparation, attention span, engaging learners and optimum learning experiences.

III. TRIGGERS OF NEW PEDAGOGY

Teachers need to understand what triggered this new pedagogy. As the society changes, the aspirations of people also change. Further, technological developments are the motivators and teachers must address these issues during online teaching. They are:

- i. the new knowledge developing continuously
- ii. 21st century skills such as critical thinking, independent learning, information technology must be addressed in curricular programs and develop appropriate strategies for its realization
- iii. Self-learning skills to become a lifelong learner

In view of the above, we need to inculcate specific skills for sustainable development to lead independent life and emphasize this in new pedagogy.

Student aspirations are everchanging due to their dynamic nature and is reflected in the changes of the society. This is true in this electronic age because these students are born with technology, that is, they are digital natives. Hence, anything which goes with technology works well with the present generation. Teachers can tap this issue and utilize in their teaching. Learners watch resources / modules sent by teacher at home and come prepared for discussion in the classroom during the flipped classroom strategy. This gives scope for increased interaction and engagement of learners in the class discussion. Another strategy is blended learning where the real face to face interaction is complemented with technological interphase. This results in use of both real classroom experience and online teaching.

The advantage of digital technologies is that they enable more control over access, creation and sharing of knowledge.

The driving force for technological integration in teaching-learning process is the nature of work in the present era. So, upskilling and reskilling will become a strong focus in higher education.



Figure 1. Digital age pedagogy

IV. VIRTUAL MODE OF TEACHING - FEATURES

The technological advancements resulted in the following modes of virtual teaching.

1. Hybrid or Blended Learning

It is a closer integration of classroom and online teaching where classroom time is reduced but not eliminated, with substantial time being used for online learning. The critical self-regulation areas need to be addressed are time management, generating and sustaining motivation, self-testing and managing anxiety. In this mode teachers provide help-seeking techniques, high-level question prompting and use of online graphic organizers.

2. Collaboration strategy

There is an emphasis on enabling students to construct knowledge through questioning, discussion, sharing of perspectives and sources, analysis of resources from multiple sources and feedback. In this context, teacher is a guide, facilitator, and assessor of the learning.

3. Open Educational Resources (OERs) and Digital media

YouTube videos such as TED talks or the Khan Academy and digital media, open educational resources in the form of short lectures, animations, simulations, virtual labs, virtual worlds and many other formats enable teachers and students to access and apply knowledge in a wide variety of ways. Textbooks are changing to incorporate video and audio clips, animations, and rich graphics, as well as becoming more interactive, allowing teachers and students to annotate, add or change material besides feedback and assessment.

4. Student control, choice, and independence

Access to a variety of content, mostly without charge through internet is available for students. Teacher's role is simply inculcating skill to locate, identify and use relevant resources of the subject. This will be a great skill, if students pick this and enables them to become independent self-learners with metacognitive skills.

5. E-learning or anywhere, Anytime, Any size learning

Students can access resources – classroom lectures, videos, and other material – on demand. At any time, they can contact counselors and learn, especially advantageous to working professionals. Even the regular courses are given lot of leverage to meet the specific demands and needs of the students. In a 3 or 4-year course, if a student leaves after one year, certificate is given, and if s/he leaves after two years, a diploma is given, and the student is at will to complete the course at any time.

Just in Time learning modules meeting the immediate necessity. Mobile learning, with smartphones, tablets, and other devices, is the basis of the anywhere, anytime learning provided through online learning mode.

6. Novel Forms of Assessment

e-portfolios and peer assessment are few of the new forms of assessment. Portfolios are the collection of students works – materials, resources, and assessment documents which s/he undertook during a course. Peer assessment is gaining importance in the light of teacher's busy schedule in planning the lessons. Here, one student assesses another student's work and provide feedback which helps in teacher giving the grades. In turns, each student gets a chance to see his/her fellow students learning material. Besides this peer instruction is also gaining interest among the teachers.

7. Self-Directed and Non-formal Online Learning

Massive Open Online Courses (MOOCs) and OERs provide many more potential students with support and encouragement for self-directed or non-formal learning. The availability of free open educational resources, combined with social networking (especially YouTube and LinkedIn learning), enables large numbers of students to access knowledge without the necessity for meeting institutional prior admission requirements, following a set course, or having a teacher.

Some common factors or trends are observed from the above discussion. They are:

- i. A flexible and open learning
- ii. An increased sharing of power between teacher and the student
- iii. An increased use of technology to realize 21st century skills

Now, let's move on to instructional strategies.

V. INSTRUCTIONAL STRATEGIES

Instructional strategies refer to the techniques teachers use to deliver their lessons. Instructional strategies encompass any type of learning technique a teacher uses to help students learn or gain a better understanding of the course material. They allow teachers to make the learning experience more fun and practical and can also encourage students to take more of an active role in their education. Instructional strategies help improve the performance of teachers. Learning strategies motivate students by improving their engagement, capturing their attention, and encouraging them to focus on not only remembering course material, but truly understanding it. Teachers also benefit from using instructional strategies because they're able to better monitor and assess student performance through different methods of evaluation. The different types of instructional strategies are discussed below.

VI. TYPES OF INSTRUCTIONAL STRATEGIES

Assessment strategy: Assessments such as a graded test, quiz, project, or examination and other informal checks of student progress throughout the year, such as discussions or presentations form an important instructional strategy.

Case studies: Case studies are more spontaneous and prepare students for when they enter the workforce, where problem solving is an essential skill. Case studies, put students into groups and task them with finding a way to apply the knowledge they've acquired from reading course materials and listening to lectures into real-world scenarios that match your assigned content area.

Debates: Debates require students to research concepts and think critically to present their positions in a convincing and justifiable way.

Flipped classrooms: The flipped classroom instructional model help teachers maintain real-time and self-paced participation online. Instead of using classroom time for lecturing, teachers provide students with a pre-recorded lecture to watch prior to class. Students collaborate and discuss material online, via forum discussions with peers and subject matter experts. In the class, students can actively apply concepts via peer learning, group work and presentations.

Homework: Homework extends learning beyond the classroom setting. Homework gives students extra time to master concepts studied in class and further refine their learning.

Journals and learning logs: In this strategy, students record their thoughts, feelings, and reflections on a variety of topics. Journal entries could refer to something discussed in lecture, or they can allow students to reflect on a relevant newspaper article or piece of media they came across. Students keep a log of what they learn – at the start of a lesson; middle of a lesson; and at the end of a lesson – to encourage them to note any thoughts that come to their mind at these three points.

Minute papers: In this strategy, teachers pose a question about the day's teaching, and give students a moment to reflect before writing down their answer on their own or in pairs. The responses can provide valuable insight into student comprehension of the material.

Peer instruction: Students can prepare and present course material in class, encouraging interaction with peers.

Portfolio development: Portfolios allow students to gather, organize and illustrate examples of their learning and academic achievements. Portfolio development is the process of creating, collecting, reflecting on, and selecting work samples that best showcase students' understanding of a given concept. Once students select their top pieces that best represent their learning outcomes, they can then use a binder or scrapbook to organize their work. Work samples kept in a portfolio might include notes from an interview, a diagram, storyboards, essays, infographics and more.

Quizzes: During group discussions, pose several questions of varying complexity so that everyone has a chance to respond, including both those who are experiencing difficulties with the class, as well as those who are mastering the concepts. Quiz or

poll gives an understanding of how far along students are in their learning. Kahoot can be used to facilitate informal games or trivia sessions at the start of the class, setting the stage for what's to follow in the lecture.

Role play: Role playing also offers students a chance to practice their interpersonal skills in an environment in which they are comfortable and familiar.

Think-Pair- Share: After presenting a lesson, pause the lecture for a moment to ask students to pair up with a partner. Have them discuss the material they just learned. Prepare questions, and, once they've had some time to discuss with their partner(s), get students to take turns presenting their observations to the rest of the class.

VII. CONCLUSION

Thus, teachers are now accustomed to the new normal and everyone, young or old, students or teachers are in tune with the new pedagogy. There's something to suit every type of student, subject, and lecture format. When applied effectively, instructional strategies for teaching can help students gain a deeper understanding of course material and encourage critical thinking, beyond basic retention and surface understanding. This upskilling will be relevant for teachers in the regular conventional mode of face-to-face teaching also. Only the difference is that the practice will be in real-time regular curriculum transaction.

VIII. REFERENCES

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