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## **INNOVATIVE METHODS OF TEACHING AND LEARNING**

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### **Abstract**

*Improving teaching and learning outcomes is possible through the use innovative pedagogy. Around the world, various cutting-edge teaching techniques are currently in use. In addition to in-person instruction, hybrid education incorporates online learning. The use of multimedia and technology is explained in great depth. The use of smart devices for various tasks, such as instruction, creating test questions, student evaluation, feedback, and research technique, is covered.*

**Index Terms:** Blogging, pedagogy, podcast, pooling, smartboards, smartpen, screencast, social bookmarking, voice threads, Wikipedia.

### **1. INTRODUCTION**

The aim of this endeavour is to incorporate technology into methods of instruction to provide faculty members with a rewarding teaching experience and students with an enriched educational opportunity. Worldwide, there are two main types of education that are utilised: in-person instruction and blended learning. Synchronous instruction is the norm in education, typically occurring in a classroom where teachers and students communicate in the real time and place. This type of training is known as synchronous. (Kumar et al., 2021)

Interactions between in-person and online learning methods to share knowledge with learners in a community. This kind of instruction combines traditional instruction methods with technology-based, asynchronous instruction. The following are some benefits of asynchronous or hybrid learning. It inspires students to learn. It provides scheduling flexibility for those with part-time jobs or other assignments. Overcrowding in classrooms is decreased. In order to maximise student learning, faculty can add additional directions over time. (Isaias et al., 2020)

From their point of view, students can stay involved and communicate with teachers and fellow students more effectively. Students' problem-solving, critical thinking, and soft skill levels have improved. Students' computational and technical skills improve. (Sridevi, 2020)

According to the faculty, they are better at achieving the learning objectives of the course and are able to reassess the course material. In-class activities become more effective. Beyond-class learning is promoted by it. (Rapanta et al., 2021)

## **2. TEACHING WITH TECHNOLOGY**

### **2.1 Why Technology**

Using technology in the classroom allows teachers to present pupils with a variety of stimuli and encourages activity-based learning. Content becomes more engaging with technology. Teachers and students get greater media literacy as a result. (Asad et al., 2021)

In the classroom, technology is now an effortless component of the curriculum and is used to justify the goal of writing outcomes. Content for Technological Education Knowledge encapsulates the characteristics of this novel hybrid educator, who needs to locate himself or herself at the junction of these characteristics. In order to teach technology most effectively, we need to incorporate it into our disciplines and classrooms as models. (Leicht et al., 2018)

### **2.2 VoiceThread: Enhancing Student Involvement**

Using VoiceThread, users may upload PowerPoint slides, movies, images, and more to create multimedia presentations that include voice narration.

VoiceThread is a software that runs directly within your web browser; no other software needs to be downloaded, installed, or updated. It lets you turn media collections such as papers, presentations, movies, and photos into spaces where people may converse. These are not real-time conversations; instead, they take place at the convenience of those involved. Additionally, they are secure, with simple restrictions that allow you to define who may and cannot participate. Teachers utilise VoiceThread for a variety of purposes, including professional development training, virtual classrooms, online tutoring, extending and recording class discussions, and a thousand more uses. (Wexler, 2020)

### **2.3 Blogging**

Posting on a blog is public. Practice blogging throughout study sessions. In a class blog, students can share case studies. On the class blog, students may be asked to write notes. You are able to produce, assess, and analyse the content. (Poth, 2022)

You reflect when you blog. It is natural for educators to reflect on their experiences in the classroom and consider how they might've done things differently. This process can be aided

by blogging, which allows educators to maintain a continuous, personal diary of their choices, activities, thought processes, achievements, setbacks, and problems. Writing a blog can help you clarify your ideas. We give something of ourselves to the medium when we write. Writing for the purpose of drafting and revising is made easier by the transitory nature of blogging. Abstract ideas might become more tangible through the process of writing and rewriting them. All of your thoughts are now displayed on a screen ahead of you, and when they clear up, you can store, retrieve, and recreate them. If you would rather keep those ideas to yourself, you are under no need to publish. Keep them and return to them at a later time. The blog serves as a sort of reflection of your thoughts. Sometimes, unless we put our thoughts down in a tangible format, we really have no idea what we are thinking. (Green, 2018)

#### **2.4 Prezi–Your Presentations**

A new method of doing presentations is through Prezi. With the help of the flexible tool Prezi, you may create presentations that look polished. It resembles a free, condensed form of PowerPoint. Prezi allows you to make presentations that can be as serious or informal as you choose. Adding content to a Prezi, organising it rationally, adding audio and video, and finally sharing it with the intended audience are all made possible by it. (Elling et al., 2019)

Making a presentation is quite simple with Prezi. The entire application is incredibly simple to use; you can jump right into an entirely novel presentation without consulting the help or introduction. To get the greatest value out of Prezi, it's recommended browsing at the online resources and guidance, but even on its own, Prezi is quite useful. (Roels, 2019)

There was PowerPoint before Prezi, and that was pretty much all. Don't get us wrong, PowerPoint is an excellent piece of software, but there was undoubtedly space for improvement. Prezi creates visually appealing presentations while seeming new and simple to use. It can also handle complex and feature-rich material and make it seem beautiful. (Faulkes, 2021)

#### **2.5 Social Bookmarking**

Bookmarking is the simple act of saving a website's url in the browser's favourite folders for later use. Social bookmarking allows for an extension of this process. It first saves the bookmarks online instead of in the folder of your choice. One major advantage of this is that you can access the bookmarks from virtually any device by simply logging into your social bookmarking account, rather than only the device where you first saved them. Instead, then relying on the location where you saved the website, you may now visit your preferred websites from anywhere. The second advantage is social in nature. When you save bookmarks online, you may quickly share them with different internet users and view their bookmarks alongside them. With the ability to join particular communities of interest and connect with people who

share your interests, social bookmarking services can help you locate and access a plethora of additional helpful websites. (Robbins, 2018)

Social bookmarking has the advantage of being simple to share and maintain. It is also simple to search and store data in a database. (Sugimoto et al., 2017)

## **2.6 Podcast in Classroom**

Podcasts are online recordings that are released in segments. Making podcasts is essentially the technological counterpart of giving lectures in person. In the same way that listeners have received lectures and news, they can download the materials from the internet. The flexibility and versatility of your lecture are two advantages of podcasting. For the students who are hard of hearing, it is advantageous. (Olko & Sallabank, 2021)

## **2.7 Screencast**

On the Internet, screencasts have become a popular teaching resource. Screencasts are a useful tool for information delivery, idea exchange, and student feedback. Screencasts may be used to provide a presentation in PowerPoint with narrative and multimedia components to explain a specific subject or walk viewers through a step-by-step process. As part of the flipped teaching approach, a screencast can be utilised as an instructional tool itself or as part of real-time education in any classroom. (Ifenthaler et al., 2021)

The flipped teaching approach involves giving screencast films that teachers use to present their lectures as homework. Following that, students who have encountered problems in class they thought they would normally have resolved on themselves, without assistance from teachers, can ask inquiries.

Planning in a methodical way is necessary to produce an instructional screencast that satisfies content requirements. It is evident that screen casting is an extremely potent, highly successful, and reasonably priced educational technology that may support learning in any subject area. Screen casting is an amazing teaching aid. (Tucker, 2020)

These are the timesaving, instructional software programmes that educators can use for free. Among the freebies are Jing, Screen Jelly, Screen, and Screencast.

## **2.8 Social Media into Education**

A social media platform that groups users into groups based on common interests and viewpoints. Several well-known communities include blogs, Twitter, Myspace, YouTube, Facebook, and Delicious. (Serrat, 2017)

For learners across the undergraduate, independent, and other educational sectors, It has been hailed that Facebook and other social networking platforms hold the potential to provide novel, socially engaged educational opportunities. Social media concerns worry include losing control, committing time, superfluous details, Overloading with information an official university account can be created by anyone. (Yancy, 2019)

## 2.9 Lecture Capture

Global sharing and publication of knowledge are vital for future generations. Awesome lecture capture and streaming lectures are available using the following links. TED: A brief talk; iTunes: [apples.com/education/iPod touch-iPhone/](https://apples.com/education/iPod-touch-iPhone/) Free video lectures; 18,000 freevideolectures.com; Videlectures.com: An excellent platform for exchanging lectures. (C. M. Khairnar, 2015)

## 2.10 Cool Gadgets for Classrooms

Life Scribe Smartpen: Capable of capturing, replaying, and sending transferred data. It works similarly to wirelessly transferring ideas from you to pupils whenever and wherever you choose. Using a smartpen during a lecture allows students to take notes and comprehend any information that the teacher skips over. Smartpens record sound, visuals, and diagrams during lectures, so you are able to listen in and follow along (Staff, 2021).

## 2.11 Smart Boards

Innovative devices enable students to engage with and comprehend course material at a deeper level by making it interactive and visually engaging. Every product's built-in ease of use improves the effectiveness of education. With just a fingertip or pen, instructors may start presenting course material. They can also store notes and comments in digital ink and send students immediately to the preserved information. Products that are smart are adaptable, complimentary, and developing. This implies that if your needs for technology evolve the items you select now will continue to function together. (Medicine et al., 2018)

A smartboard or interactive whiteboard can help you transform your classrooms into lively, collaborative areas where students are motivated and involved. Instructors may easily deliver this information to students and interact with interactive multimedia content by using a whiteboard that is interactive like the SMART Board. They can even take notes using digital ink and store them quickly. Students' learning is made more visual and interesting with SMART Board interactive whiteboards, which aids with comprehension and increases recall of the content. (Netexplo & Information, 2019)

## 2.12 Wikipedia in the Classroom

Advice on Efficient Utilisation Research indicates that Wikipedia's accuracy is comparable to that of Britannica. Students become teachers through writing articles, which enhances the results. Producing art for the public eye raises motivation and output. Get input from the FA team's Wikipedia editors. Excellent article: 800; feature article: 2000. Over 20 academic institutions have projects on Wikipedia. Your work's worth is evident by the amount of hits it receives each month. (Paul & Elder, 2020)

- Course host at Wiki University:

- The non-profit organisation Wikipedia media, which also runs Wikipedia species (a dictionary of species) and Wikipedia books (free textbooks)
- Wikipedia quotation (Quotes Collected)
- Wikipedia (A place to host courses and other materials) Wikipedia diversity
- Teachers can create course pages that include lesson plans, syllabi, and other notes that students can access at any time. Videos may be additionally accessed from this page.
- Additional material can be added by groups and students.
- Create a free online test for upcoming pupils.

Involve students in a continuing initiative to expand knowledge for upcoming student generations.

### **2.13 Individual Learning Environment: Extending Learning Beyond of the Classroom**

Encourage pupils to look beyond the box when completing assignments and give them the freedom to use their imaginations. Effective learning enhancement through the use of multimedia and innovative thinking. Remixing creativity, technology, and education produces outstanding outcomes. (Stéphan et al., 2019)

### **2.14 Moodle**

An open-source technology to assist in session design is available. Educators and learners can access electronic resources such as lecture notes, useful online resources, and activities such as discussion boards, group projects, reflective diaries, and quizzes via Moodle, a virtual learning environment. (Asztalos, 2023)

### **2.15 Evernote**

It is an instrument that enables you to record your notes, experiences, images, and webpages. Teachers and students can use Evernote to organise all of their own writing. The app is available for download. With an Evernote notebook which is portable, searchable, and unbreakable they may arrange all of their handouts and notes. The cloud stores their data safely, even if users misplace their phone. Students may store photos, PDFs, and even handwritten notes using this useful application, which is perfect for organising class notes and research tasks. (Webber & Zheng, 2020)

## **3. CONCLUSION**

Any style of instruction that doesn't compromise the goal could be deemed innovative. The primary goal of education, according to the researchers, should be to transfer knowledge or information into students' minds. Teachers can circumvent the system in an assortment of ways and provide pupils with the resources and opportunities that foster an inventive attitude.

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