



FLIPPED CLASSROOMS AN INNOVATION IN TRANSFORMING THE DYNAMICS OF TEACHING LEARNING PROCESS IN CLASSROOMS OF TWENTY FIRST CENTURY

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ABSTRACT :

In this digital information age, ICT has made huge impact on all spheres of human activity. ICT facilitates access to a wide range of information enriches the possibilities of transforming information and enhances the possibilities for communication and collaboration. In the current financial crisis, educational institutions and universities are facing difficulties in providing necessary support for educational, research and development activities and flipped classroom is the alternative to address the issues there by improving agility and savings. The flipped classroom is a form of blended learning that describes a reversal of traditional teaching where students gain first exposure to new material outside of class, usually via reading or lecture videos, and then class time is used to do harder work of assimilating that knowledge through strategies such as problem solving, discussion or debates. The flipped classroom at its most basic level is the creation of online video lectures to quickly share lessons on concepts studied in class. Thus flipped classroom are causing a paradigm shift in the way teachers provide instruction by inverting traditional teaching methods to engage students in the learning process. Flipped classroom technology has provided the lectures to be moved out of the classroom and delivered online as a means to free up class time for interaction and collaboration. Teachers must possess a requisite set of technical skills, conceptual knowledge and pedagogical expertise in order to effectively implement a flipped classroom technology. The present paper is an attempt to focus and elaborate the significance of flipped classroom in the present educational system.

KEYWORDS : *Flipped classroom, Blended learning, Online learning, Smart Classrooms, ICTs.*

INTRODUCTION

The 'flipped classroom' has been a new revolution in the educational world for some time now. The concept of flipped classroom has now become one of the hottest debates in the academic world among teachers, professors and administrators alike. As education-based technology and online platforms continue to grow and improve, more and more devices, programs and concepts are entering the educational world. Teachers can deliver this instruction by recording and narrating screen casts of work they do on their computers, creating videos of themselves teaching, or creating videos of themselves teaching, or creating video lessons from trusted Internet sites. Students can watch the videos or screen casts as many times as



they need to, enabling them to be more productive learners in the classroom. Since direct instruction is delivered outside the group learning space, teachers can then use in-class time to actively engage students in the learning process and provide them with individualized support.

Moreover the immediate feedback that occurs in the flipped classroom helps students recognize and think about their own growth in understanding.

Originally developed in 2000 by Wes Baker at Cedarville University in Cedarville, Ohio, flipped classroom model has gained widespread attraction across the country as a means to integrate computer and online resources with day-to-day coursework.

TRADITIONAL VERSUS FLIPPED TEACHING

The traditional pattern of teaching has been to assign students to read textbooks and work on problem sets outside school, while listening to lectures and taking tests in class. In flip teaching, the students first study the topic by themselves, typically using video lessons prepared by the teacher. In class, students apply the knowledge by solving problems and doing practical work. Complementary techniques included differentiated instruction and project-based learning.

Flipped classrooms free class time for hands-on work. Students learn by doing and asking questions. Students can help each other, a process that benefits both the advanced and less advanced learners. Flipping also changes the allocation of teacher engaged with the students who ask questions to those who don't ask but tend to need the most attention. We refer to 'silent failures', said one teacher, claiming that flipping allows her to target those who need the most help rather than the most confident.

FLIPPED CLASSROOM MODEL

The flipped classroom model is revolutionizing teaching methods and strategies around the globe, addressing these concerns by creating time for individualized 1:1 instructions between teachers and students. Flipped classroom are a reversed teaching model that "flips" the settings for instruction and homework. In a flipped class, instruction is provided to students at home through vides or Internet-based lectures and class time is used to complete homework-like assignments. By moving instruction to the home and homework to the class, students are given more 1:1 time with their teacher to work through their assignments. This 1:1 time helps to ensure that each student fully understands the key concepts presented in each lesson plan before moving on to the next lesson.

WORKING OF A FLIPPED CLASSROOM

Flipped classroom works in the following way:

1. Teachers provide students with digital instruction to watch at home (or after school).
2. Students watch the instruction to familiarize themselves with concepts to be covered in class the following day.
3. Students spend class time completing assignments, based on the previous night's instruction, with the assistance of teachers.
4. Students with a firm grasp of the lesson are encouraged to move on, and students who nbeed assistance have a teacher readily available to help.

The Key Elements of the Flipped Classroom

Provide an opportunity for students to gain first exposure prior to class. The mechanism used for exposure can vary, from simple textbook readings to lecture videos to pod casts or screen casts, Video lectures prior to class. Videos can be created by the instructor or found online from You Tube.

The purpose of flipping the classroom is to shift from passive to active learning to focus on the higher order thinking skills such as analysis, synthesis and evaluation. Students access key content individually (or in small groups) prior to class time and then meet face-to-face in the larger group to explore content through active learning and engagement strategies.

In the flipped classroom, the roles and expectations of students and teachers change where:

1. Students take more responsibility for their own learning and study core content either Individually or in groups before class and then apply knowledge and skills to a range of activities using higher order thinking.

2. Teaching 'one-to-many' focuses more on facilitation and moderation than lecturing, though lecturing is still important. Significant learning opportunities can be gained through facilitating active learning, engaging students, guiding learning, correcting misunderstandings and providing timely feedback using a variety of pedagogical strategies.

3. There is a greater focus on concept exploration, meaning making and demonstration or application of knowledge in the face-to-face setting.

SIGNIFICANCE OF FLIPPED CLASSROOM

1. In a traditional lecture, students often try to capture what is being said at the instant the speaker says it. They cannot stop to reflect upon what it is being said, and they may miss significant points because they are trying to transcribe the instructor's words.

2. By contrast, the use of video and other pre-recorded media puts lectures under the control of students: they can watch, rewind, and fast-forward as needed.

3. Lectures that can be viewed more than once may also help those for whom English is not their first language. Devoting class time to application of concepts might give instructors a better opportunity to detect errors in thinking, particularly those that are widespread in a class.

4. At the same time, collaborative projects can encourage social interaction among students, making it easier for them to learn from one another and for those of varying skills levels to support their peers.

5. Concepts engagement takes place in the classroom with the help of the instructor. Educational technology and activity learning are two key components of the flipped classroom model.

BENEFITS OF FLIPPED CLASSROOM

The flipped classroom has several benefits which are as following:

1. More efficient for teachers

While there is an initial upfront investment that teachers have to make to set up a flipped classroom-creating a video can take 15 minutes or two days- they ultimately save a lot of time using this model. In the future, recorded lesson plans and collected resources can be easily transferred to other classes. Plus, if students miss a class, teachers don't have to spend time going over missed material because it's all online.

2. Students can control their learning

Research has shown that we all learn in different ways and at different speeds. If students are learning content at home, they can take their time to read through a passage, re-watch a video lecture or even initiate a Google search so as to better understand an idea. Instructors can also post multiple kinds of materials so that students are more likely to find a source that will help them, whether it's an article, video or interactive tool.

3. Inexpensive for schools to implement

Besides investing in a new video cameras or better classroom computers, the only other thing you need is time. This model is much more cost-effective for schools than purchasing hundreds of new classroom gadgets to increase engagement.

4. Versatile, engaging way to share content

One of the greatest things about this model is that teachers can share so many different kinds of content. Learning isn't restricted to a whiteboard or textbook. Instead, students can be directed to any website, mobile application or other kind of content. Teachers can create learning modules that allow students to quickly jump from one resource to the next.

5. Students-including special education students

Students-including special education students, which have difficulty with concepts can pause and rewind the videos to give themselves extra time to parse out what a teacher means. "That's one of the most powerful things about these videos: that students who process slower, can process slower".

Administrator's role in implementing Flipped Classroom Learning

The administrator's role in implementing flipped learning is as critical as instructional leaders and lead learners in their schools. They can support innovation, provide collaborative time and professional development, assign resources to innovative teachers, communicate with parents about new teaching strategies, and provide feedback and a view from outside the classroom.

The primary reason administrators balk at flipped learning is a lack of familiarity. They need more information about how it works on the issues that come up like how to evaluate flipped learning teachers, the problems of rolling it out etc. Administrators say that flipped learning can greatly increase a teacher's ability to provide differentiated instruction given that students work at their own pace in the classroom---and teachers can provide more challenging work for those who are breezing through.

Administrators also continue to support the use of video within instruction and believe that it has an important role within classrooms today and tomorrow. Approximately one quarter of school principals indicated that their teachers are using videos they found online or creating their own. Videos as part of their flipped learning model implementation. And thinking ahead of their next generation of classroom teachers, some of the principals said that they want pre-service teachers to learn how to create and use videos and other digital media within their teachers preparation programs.

Advantages of Flipped Classroom Learning

1. Students are able to approach material and take it in at their own speed. By covering lecture material at home and from a video-based platform, students can privately view the teaching learning material. This allows them to approach things at their own pace without worry of peers noticing them moving slower or faster. Students can stop, pause, rewind, and fast forward material so that they can examine things in their own way.
2. By taking the lecture portion of the classroom home with them, students are able to utilize their teachers one-to-one attention more successfully in the classroom. Students sit through lecture, gather questions, and prepare themselves for the day with the teacher to tackle "homework". Because the actual exercises are done in the classroom rather than at home with this model, students have their teacher available for questions with problems when they occur.
3. The flipped classroom also allows teaching to adapt more easily to the different teaching styles that individual students may be most successful with. By putting lectures in a video format, students can listen to the lesson and watch the video illustrate the lesson. Of course, this largely depends on how successful the actual video lecture is. We can watch a video lecture (like the Khan videos) that explains concepts verbally, but also draws them out in images and pictures. This provides adequate learning opportunities for verbal learners and for visual learners. With in-classroom lecturing, the visual aspect of lecturing can be significantly more difficult to accomplish.

DISADVANTAGES OF FLIPPED CLASSROOM LEARNING

1. Classroom lecturing works better for some and doesn't work for others; the flipped classroom method is not going to accommodate every individual perfectly. The biggest setback today to the flipped classroom method is that not all students and schools have access to technologies that can really work for this method.
2. Students from lower income areas and poor socio-economic families may not have access to the computers and Internet technologies that the flipped classroom requires. The structure really hinges on every student having personal access to his or her own personal device. This simply is not the case for every student and every school district. Students who do not have personal home computers or access to the

Internet would be forced to use public computers as at a library or at the school. This, to some extent, eliminates the personal and private experience of taking in the lecture. What makes having lectures as homework so powerful is that students can do it on their own time and in their own way. At a library computer or school computer time limits typically exist and access can be limited if it is busy. This is problematic.

3. Another downside to the idea of flipped classroom is that many people bring up is the fact that students would be spending all of their "homework time" plugged-in front of a computer screen. Not only do all students do well with learning from a screen, but this also adds to a student's time in front of a screen and sitting inactively. While this concern isn't singular to the students to get up and get away from their computers, televisions and iPods.

EDUCATIONAL IMPLICATIONS

The flipped classroom constitutes a role change for instructors, who give up their front of the class position in favour of a more collaborative and cooperative contribution to the teaching process. There is a concomitant change in the role of students, many of who are used to being cast as passive participants in the education process, where instruction is served to them. Activities can be student-led, and communication among students can become the determining dynamic of a session devoted to learning through hands-on-work. What the flip does particularly well is to bring about a distinctive shift in priorities from merely covering material to working towards mastery of it.

CONCLUSION

Flipped classroom learning are shifting the way teachers provide instruction by inverting traditional teaching methods to engage students in the learning process. Using technology, lectures are moved out of the classroom and delivered online as a means to free up class time for interaction and collaborations. This meta-cognitive approach to instruction can help students learn to take control of their own learning by defining learning goals and monitoring their progress in achieving them. Although students thinking about their own learning are not an inherent part of the flipped classroom, the higher cognitive functions associated with class activity, accompanied by the ongoing peer/instructor interaction that typically accompanies them, can readily lead to the meta-cognition associated with deep learning. In order to effectively implant a flipped classroom, teachers must possess a set of requisite technical skills, conceptual knowledge and pedagogical expertise.

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