



Flipped classroom: A new innovation in teaching and learning

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ABSTRACT

Education is meant to meet the needs and aspirations of the students. Modern education demands modern approaches which are totally different from traditional approaches of teaching and learning. The needs and demands of society are dynamic so it is necessary that approaches of teaching and learning should also meet these changes and challenges. Educators are continuously busy in putting their efforts to find new strategies for engaging students in the classroom which will help to increase their potency in the learning process. By flipped classroom the traditional teaching learning is reversed by instructional strategy and a type of blended learning through online instructions. A flipped classroom inverts the normal teaching learning process, it moves the lectures outside the classroom and uses learning activities to move practice with concepts inside the classroom. The strategy "flipped classroom" also known as the "inverted classroom" or "reverse instruction" - a method incorporates technology to "flip" or "reverse" what is typically done in class with what is typically done as homework which supports instructional material for students that can be accessed online. At the heart of the flipped classroom which is moving the "delivery" of material outside of formal class time and using formal class time for students to undertake collaborative and interactive activities relevant to that material. This frees up classroom time that had previously been used for lecturing. This research study explores the "flipped" or "inverted" classroom and its effects on student learning. The flipped classroom is a form of education in which students learn new content during out-of-class-time instead of the traditional review exercises that are normally given, which opens up class time for activities, problem solving, and other forms of instruction. The present paper is analytical in nature. Relevant books, articles and various research papers have been used. Data and information have been collected from concerned sources as per the need of the study. Interpretive approach has been followed in this study.

Key words: *flipped classroom, ICT, Teaching learning, blended learning*

1. INTRODUCTION

Flipped classroom is an instructional strategy and a type of blended learning that reverses the traditional learning environment by delivering instructional content, often online, outside of the classroom. It moves activities, including those that may have traditionally been considered homework, into the classroom. In



a flipped classroom, students watch online lectures, collaborate in online discussions, or carry out research at home and engage in concepts in the classroom with the guidance of a mentor.

In the traditional model of classroom instruction, the teacher is typically the central focus of a lesson and the primary disseminator of information during the class period. The teacher responds to questions while students defer directly to the teacher for guidance and feedback. In a classroom with a traditional style of instruction, individual lessons may be focused on an explanation of content utilizing a lecture-style. Student engagement in the traditional model may be limited to activities in which students work independently or in small groups on an application task designed by the teacher. Class discussions are typically teacher centered, who controls the flow of the conversation. Typically, this pattern of teaching also involves giving students the task of reading from a textbook or practicing a concept by working on a problem set, for example, outside school.

The flipped classroom intentionally shifts instruction to a learner-centered model in which class time explores topics in greater depth and creates meaningful learning opportunities, while educational technologies such as online videos are used to 'deliver content' outside of the classroom. In a flipped classroom, 'content delivery' may take a variety of forms. Often, video lessons prepared by the teacher or third parties are used to deliver content, although online collaborative discussions, digital research, and text readings may be used.

A common assumption in the flipped classroom is that new technologies make it easy to convert instructor lectures through digital recordings and place these online for student access outside of face-to-face class time. As a result, students can review lectures in advance of class, then have class sessions for working together on the assignments that traditionally would have been done as homework. Not only are students seen as gaining through working together on "homework" problems in class, but instructors are able to more quickly see where students are struggling and provide remedial support which advocates that by using class time for student discussion, collaboration and problem-solving, the traditional lecture-based mode of instruction can be replaced by a more student-centered learning that is not only more effective but also achieves larger goals of 21st century skills (Bergmann & Sams, 2012^[1] The flipped classroom is gaining support at all levels of education, including in primary, secondary and post-secondary classes students must develop factual knowledge, understand that factual knowledge in the context of a conceptual framework, and organize knowledge in a way that allows them to transfer and apply it. By allowing students to use knowledge in class with feedback from peers and the instructor, flipped classrooms help students correct misconceptions and organize new knowledge effectively.

Active learning can include activities, discussion, student-created content, independent problem solving, inquiry-based learning, and project-based learning (Bergmann, Overmyer, & Wilie, 2012)^[2]. (Ultanir, 2012).^[3] The frequency of these personal experiences can be increased in a flipped classroom through the use of activities, creating students who are active learners (learning by engaging in analysis, synthesis, and evaluation), rather than passive learners (learning by the absorption of information from hearing, seeing, and reading)



(Minhas, Ghosh, & Swanzy, 2012;^[4] Sams, 2013).^[5] Active learning has been found to produce better grades than passive learning (Minhas, Ghosh, & Swanzy, 2012).^[4] The flipped classroom also involves a transformation of the teacher's role. In a traditional class, the teacher can be described as the "sage on the stage" that presents information in engaging ways in hopes that students will pay attention and absorb the information (Bergmann, Overmyer, & Wilie, 2013)^[6]. The flipped classroom moves away from this idea, placing the teacher in the role of the "guide on the side" who works with the students to guide them through their individual learning experiences (Bergmann, Overmyer, & Wilie, 2012).^[6] The "guide" role can be illustrated using Paulo Freire's idea that education "should not involve one person acting on another, but rather people working with each other,"

One such study by Strayer 2008,^[7] The effects of the Classroom Flip on the Learning Environment, showed that students in a flipped classroom environment preferred the method and displayed a higher level of innovation (being able to solve problems in creative and unique ways) and cooperation (familiarity with working with others to solve problems and discuss ideas), than students in a traditional classroom setting. His results also indicate that students in a flipped classroom experience a lower level of task orientation than students in a traditional classroom (Strayer, 2008).^[7] From the results of his study Strayer gives recommendations for the implementation of flipped classrooms. One recommendation for implementing a flipped classroom in an introductory course is to provide step-by-step instructions for classroom activities to create more structure for the students (Strayer, 2008).^[7] To create more structure a teacher could also scaffold the activities. Scaffolding is instruction given when learning a new task where different levels of support are given, with student eventually having most or all support removed as the activity progresses (Hogan & Pressley, 1997).^[8] Another recommendation is to keep open activities short; spending no more than two lessons on any one activity (Strayer, 2008).^[7] Another study on the flipped classroom was conducted by Toto and Nguyen. In this flipped classroom, students watched a 30-minute video lecture prior to going to class. As a result, there was additional free time in class, which was spent using real-world tools and engaging in practical applications (Toto & Nguyen, 2009).^[9] This classroom was found to have increased student engagement (Toto & Nguyen, 2009).^[9] Furthermore, students had more opportunities to gain a sense of how the tools and ideas they were learning are used in the real world (Toto & Nguyen, 2009).^[9] The positive results of this flipped classroom stem from the effective use of class time.

2. IMPACT OF FLIPPED CLASSROOM ON TEACHING AND LEARNING:

Student Attitudes Towards Flipped Instruction Some of the findings from research conducted thus far would indicate that students have a positive association with the flipped instruction (Herried 2013).^[10] For example, Ruddick (2012)^[11] flipped a college prep chemistry class and both found that students perceived the flipped



instruction as a better or more efficient method of teaching. Additionally, Chester (2011)^[12] found that a flipped classroom improves student behavior.

Improved Student Comprehension In regards to improving student content knowledge, the findings in one recent research study have allowed researchers to indicate some improvement in student learning and total comprehension. Ruddick (2012)^[11] taught a college prep chemistry class and the research findings from this study indicated improvements in students in the flipped class's scores compared to student scores in a traditional classroom. He showed that not only was the average student score higher in the flipped class, but the percent of students performing at or above a C level on the exam was greater in the flipped class. In a study at Virginia State University, an introductory course on psychology consisting primarily of African American students found that students in a flipped classroom environment scored 8.6% better in the class on average over the traditionally taught course (Talley 2013).^[13]

Negative Responses About the Flipped Classroom Not all research has shown overwhelmingly positive responses. At Townson University, librarians decided to flip some of the courses they offer at the library. 90% of the 148 students who participated responded on a post-course survey that they had completed the pre-library (a.k.a. pre-class) assignments and that the pre-library assignments were helpful to learning. However, forty-five percent of the respondents still said that despite the pre-library sessions being helpful, they still prefer a traditionally taught class. The reasoning for nearly half of the class responding in favor of a traditional class was deemed inconclusive as very few respondents gave explanation or clarifications for their choices on the post-class survey (Arnold-Gaza 2014)^[14]

3. CONCLUSION

The flipped class room model concept finds a remarkable place in engaging our teachers and students for better and effective teaching learning transformation. As it promotes equal learning opportunities of students to have prior information regarding topics they are going to learn about the next day in their classroom. they can view and review the same topic again and again, which could better help them to understand the fundamental or basics of the topic as it is a technological driven era every student could avail himself by using the modern technology. On the basis of this paper, I strongly recommend the incorporation of flipped model in our classroom which is at par to the traditional method. The biggest advantage of flipped model is that it is learner centered and is much helpful to develop the individual problem solving ability of the learners. It requires knowledge of technical skills for both the students and teachers. It is better than traditional method in the context that the teacher only acts as a guide. or facilitator, which helps in developing the confidence of students to be an independent thinker. The flipped classroom model offers a great use of today's innovative technology which has made it possible for learners to gain access to the information on move. The flipped classroom model provides a comprehensive and illustrative coverage of the content to be studied which best suits to the interest of the students. the flipped classroom initially requires a significant time commitment to create lecture, videos and



prepare lessons, however delivering instruction outside of class with lecture videos increase active classroom learning time, which in turn increased the number of classroom instructions. By this approach we can make teaching Learning process enjoyable and fruitful. The Flipped Classroom Model gives students Freedom over how, when and where they Learn and it lets them engage. with the video content in the way that suits them best. The need of the hour is that The Flipped Classroom Model should be incorporated in our education system at different possible levels

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