

## FLIPPED CLASSROOM APPROACH: OPPORTUNITIES AND CHALLENGES

*Ritu Saxena, Assistant Professor, Institute of Technology and Science, Ghaziabad, India*

*D. K. Pandey, Professor, Institute of Technology and Science, Ghaziabad, India*

*Nitin Kr Saxena, Associate Professor, Jaipuria School of Business, Ghaziabad, India*

### **Abstract:**

*The flipped classroom has been much talked about concept in recent years. Flipping the classroom includes passive learning events such as one-way lectures are forced to the freestanding class hours in the form of short tutorials, videos, student-generated content resulting in saving the precious class time and spending it on active learning activities or events. Flipping the classroom increases student-student interactions, student-teacher interactions. It also helps busy students and speaks the language of today's students. Flipped classroom can be initiated through other teacher's videos, self-created videos and through student content. Teachers initially face issues while implementing flip classroom primarily due to low technological or digital competence. This paper is an attempt to understand the flipped classroom approach and the flip classroom model. The paper also uncovers the opportunities and challenges while implementing. Understanding the right approach to flipped classroom will result in improving the student engagement in the classroom.*

**Keywords:** *Flipped Classrooms, Higher Education, Active Learning, Blended Learning, Student Engagement.*

In a traditional instructor-centered classroom, the teacher delivers lectures during class time and gives students homework to be done after class. In a flipped classroom, things are done the other way like the teacher “delivers” lectures before class in the form of pre-recorded videos and spend class time engaging students in learning activities that involve collaboration and interaction. A flipped classroom typically and traditionally activities happened inside classrooms and now happening outside classrooms and vice versa (Lage et al. 2000). Strayer (2012) stated of the flipped classroom approach is a type of blended learning. Bishop and Verleger (2013) describe flipped classrooms as collaborating, group-based learning happening inside the classroom environment and direct, computer-based individual teaching occurring outside the classroom. Flipped classroom include (a) a vision for students to gain experience to content prior to class, (b) a reassurance for students to prepare for class, (c) a method to evaluate student understanding and (d) in-class activities that focus on higher-level cognitive activities including peer learning, active learning or problem-solving (Abeysekera and Dawson 2015).

### **Flipped Classroom Model**

The flipped model is an interactive teaching method with a student-centred approach that “flips” the traditional classroom by moving information transfer out and moving information acclimatization into the classroom (Crouch and Mazur, 2001). The flipped classroom model has existed for years (Lage et al., 2000) and studies regarding its effectiveness as a pedagogical approach at the college level are relatively scarce since it has only recently been introduced and implemented in higher education. This model is built on various instructional foundations that shift the educational approach from a teacher-centred to a student-centred system connected primarily to the theories of Piaget (1967) and Vygotsky (1978). The emphasis on expanding one-to-one interaction shifts the focus to student-centred instruction and more

actively involves students in the learning process. The flipped classroom model was shown to help cultivate active learning (Berrett, 2012), and the purpose of this teaching strategy is to improve the quality and efficiency of the teaching and learning process (Demski, 2013; Estes et al., 2014). Developments in active learning approaches combined with innovations in instructional technology have led to increased use of the flipped classroom model (Bergmann and Sams, 2012; Thompson, 2011).

### **Importance of the study**

Globalization has exaggerated all disciplines around the world and has increased pressure on educational programs to revolutionize their teaching contents and approaches to prepare students for challenging future careers. The literature reveals that the flipped classroom model can optimize class time, improve higher-order thinking skills, promote teamwork activities, enhance problem-solving skills, and facilitate teacher-student and student-student interactions (Estes et al., 2014). However, the implementation of this approach among professors in India has been limited and its progress in higher education has been remarkably slow. Though, the pedagogy in the prestigious higher education hubs in India remains quite traditional, as it predominantly employs a lecture centred approach and focuses on theories, memorization style, and analytical methods. This traditional approach does not provide the interactive learning environment needed to promote creativity and innovation. The integration of new instructional and media technologies in teaching methods is a challenge that must be addressed in order to transform traditional education and prepare students to flourish in challenging future careers.

### **The effectiveness of flipped classrooms**

Various researches measuring the effectiveness of the flipped classroom in higher education contexts (a) compares a flipped course to previous more traditional reviews (e.g. Morin et al. 2013; Reyneke and Fletcher 2014; Rossi 2014; Talley and Scherer 2013), (b) utilises pre-post designs assessing changes from the beginning of the flipped course to the end (e.g. Bates and Galloway 2012; Vaughn 2014; Warter-Perez and Dong 2012) or (c) is focused on student insights and satisfaction with the course (e.g. Butt 2014; Critz and Knight 2013; Kim et al. 2014; Schwartz 2014). The flipped classroom approach varies significantly in methodological rigour, which adds additional weight to opinions regarding the lack of evidence backing-up this pedagogical approach. Despite all the variances in methodological rigour, results from studies appear reliably positive (Bishop and Verleger 2013).

Tague and Baker (2014) found that highly motivated students perform better in a flipped environment. Enfield (2013), despite a relatively small sample size, suggests that low achievers find pre-class videos less engaging and more difficult. Bishop and Verleger (2013) described that the theoretical foundations associated with flipped classroom approaches demonstrate evidence to support the theoretical framework. At the heart of most student-centred learning theories and methods is active learning (Bishop and Verleger, 2013). Bonwell and Eison 1991 found active learning requires students to engage in meaningful learning activities that allow them to think about what they are doing. Gleason et al. (2011) described that some control of the learning environment is shifted from the teacher to the learner.

Brame (2013) establish the two key essentials of a flipped classroom approach are, providing an incentive for students to prepare for the class and a method to assess student understanding. Love et al., (2014) defined that both of these essentials rely on summative assessment being part of the flipped classroom design. Though, no considerable evidence presently exists to support that an assessment-driven flipped classroom approach has improved learning outcomes for students than a flipped classroom where summative assessment is not integrated with the flipped aspect of the teaching. Finally, for many dissimilar reasons teachers decide to incorporate a flipped classroom approach into only part of the course.

### **Opportunities for Flipped Classroom Approach**

1. Students methodically are taught critical thinking. Consequently, students ask questions of the teachers and other students when working in the team activities which provide immediate feedback on their learning and therefore benefitting from both their successes and mistakes. Thus it can be

concluded that Flipped classroom approach helps in increasing teacher-student and student-student interaction.

2. Active learning which is inherent in flipped classroom approach provides a platform upon which to practice subject content and practice work and industry skills. Freedom in thinking and action learned in the classroom can be transferred and applied to the work environment. Thus flipped classroom allows students to pause and rewind their teachers.
3. Less effective students are exposed to the learning processes of effective learners, thus encouraging engagement and learning from each other. This creates a forum for sharing learning approaches and ideas. Thus Flipping helps struggling students and helps them in all abilities to excel.
4. More effective learners can see how they may assist in a mentoring/teaching capacity. This skill can be transferred to the corporate and work environment after graduation.
5. Supports and facilitates active student-centered learning and can enable multiple learning styles. It allows teachers to know their student better and create real differentiation. Flipping also helps in changing the way a teacher talk to a student.
6. Opportunities are generated for students to explore their own propositions, promoting practices consistent with skill development as life-long learners. Flipping speaks the language of today's student.
7. Targets the development of the skills of independent study (self-directed learner) which prepares for life-long learning and skills required in the international context. Flipping also helps busy learners. It's a great technique for absent teachers.
8. Provides sequential opportunities to reinforce and apply knowledge. Students can question what is happening, can seek clarification on what they do not understand and project ideas forward into similar work and unique MI situations. Peer-to-peer-centered learning builds skills in managing conflict, creativity, time management and collaboration.
9. Opportunities to improve team building and problem-solving skills produce an immediate, timely outcome. Leadership skills are demonstrated and developed.
10. Students are learning to think critically. Their questions can be more analytical as they have had time to contemplate the material before class. Flipping change the classroom management and way the student interact with the teacher.

#### **Challenges in Flipped Classroom Approach**

1. The approach may not suit traditional learning styles of culturally and linguistically diverse MI students. This is normally overcome as students become familiar with the approach and progressively come on board.
2. Academics require technology competence. Before commencing, the flip approach consideration is required on personal competence and the quality and quantity of the technical support provided by the teaching institution.
3. The actual physical layout of the classroom requires consideration. For example, room size, layout, and availability of desks that can be moved to provide space for separate team discussions and the ability to project team answers as in a boardroom situation may be required for managerial type answers.
4. By considering the graduate attributes required, course and unit designers need to engage more with the MI and employers. The MI is addressing a well-known skills shortage, along with the employer challenges of attracting and retaining staff. Employers are aware that graduates can play central roles in their organization's transformation, improving business processes and customer service through new insights. By employers being part of the instructional design process, a more industry-ready employee is likely.
5. Not all students are self-motivated. Some students do not come prepared to the class. This leads to less

participation and engagement from the students. A significant barrier is students who do not prepare for sessions fails and may struggle. So, it is significant that the teacher inspires students to do the work before the flipped class.

6. Some see the concept of flipped classroom as more homework for students leading to extra workload. However, with the introduction of the flipped classroom, the teacher can assign less homework to start with. Some lecturers pre-prepare their lectures and upload them onto the university's LMS. This has several advantages such as the students can listen to the recordings at the location and time most convenient to them. However, there is an expectation that students do listen to the recordings and come to the class prepared. It cannot be assumed that all students have a computer (or tablet) and internet access at home and those students that are at sea may have intermittent internet access. Also, students from low-social economic background may be unable to afford these resources.
7. Creating a flipped classroom requires substantial time, spent initially to conceptualize learning activities for the classroom and to develop resources to be used up before the class. We argue that the time investment is paid back once these resources are created and revised.

This highlights the importance of modifying the introduction of flipped teaching to a class to better engage those students who may be likely to resist this change. Studies suggest that training students to be active learners may promote flipped classroom success. Estes et al. (2014) suggest that resistance to flipped teaching could be moderated through orientation to learner-centred approaches, personally relevant instruction, and transparent teaching practices. Although differences were found between those who recommend and those who resist flipped teaching environments. This differentiation based on preferences did not correspond to differences in their final grades in a flipped course. This suggests that preferences alone may not be the most informative aspect on which to evaluate a flipped classroom environment, especially since preferences could result from a number of different factors other than a fundamentally improved pedagogical approach. The occurrence of evaluating preferences in previous research is high (Bachnak and Maldonado, 2014, Christiansen, 2014 & Tague and Baker, 2014).

Student grades may improve when teachers adopt flipped classroom approach based on an academic perspective and use collective assessment when flipping the class. These facets seem to signify a stronger investment in the flipped classroom approach that has succeeding advantages for learning outcomes. Though, enhancements in learning outcomes appear to accord with less positive insights of the course activities. This can be challenging when (a) courses and teacher assessments are often based on student perceptions and satisfaction and which influence teaching decision-making and (b) assessments of flipped classrooms similarly depend on student perceptions and satisfaction with the course (Butt 2014, Kim et al. 2014 & Schwartz 2014). This issue has the potential to discourage teaching academics from adopting a flipped classroom approach, despite potential advantages for student learning.

### **Conclusion**

The present study concludes that a teacher should consider integrating a theoretical viewpoint into their flipped classroom approach in order to improve the student engagement. Teachers should design the flip-related assessment items, and flip the entire course in higher education if they are focused on improving student outcomes. However, due to the originality of the student-centred learning for many students, resistance to the flipped classroom approach may arise. This could result in dropped approaches towards course activities or events, a belief that the course is incompetent, and decreased the confidence in their ability to complete the set work. In addition, the literature suggest that a large proportion of students will be inclined to resist the flipped classroom environment due to their preferences for learning in-class as opposed to pre-class in higher education. Supporters of the flipped classroom model claim that the success of the model is due to its fundamentals in active learning pedagogy (Adams et al., 2016).



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