

The Flipped Classroom: An active teaching and learning strategy for making the sessions more interactive and challenging

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Abstract

Flipping the classroom is a pedagogical model that employs easy to use, readily accessible technology based resources such as video lectures, reading handouts, and practice problems outside the classroom, whereas interactive group-based, problem-solving activities conducted in the classroom. This strategy permits for an extended range of learning activities during the session. Using class time for active learning provides greater opportunity for mentoring and peer to peer collaboration. Instead of spending too much time on delivering lectures, class time can best be utilized by interacting with students, discussing their concerns related to the particular topic to be taught, providing real life examples relevant to the course content, challenging students to think in a broader aspect about complex process and encouraging different team based learning activities.

Keywords: Teaching and Learning, Flipped Classroom, Medical Education, Active learning.

Introduction

The idea behind using this strategy is in spite of introducing basic concepts during limited class time. The instructors can make a short video lecture, screencast or vodcast, allowing students to engage during class activities.

The issue has always been raised and higher education has undergone scrutiny in terms of demonstration of student learning. The discussions based on the idea that institutions should start thinking of different ways to deliver the curriculum in order to meet the standards and demands of the higher education. For decades, researchers and educators have questioned the importance of current teaching strategy that is based on lectures.¹ Despite of innovations in modern technology, lecture is still considered as a significant method for teaching adult learners. In recent years, medical colleges and universities all over the world have been facing

challenges for their constant failure to adequately provide good medical education to the students in order to fulfill the growing needs of society related to healthcare.²

Literature suggests that the critical thinking and complex reasoning skills seems to be deficient in a significant number of students, which is essential for becoming a proficient physician. Literature consistently highlights the need of rethinking of what is going on in the lectures. Students seem to be least interested in attending the lectures and found it boring. Research shows that student's attention declines significantly and gradually after the first 10 minutes of class.³ To keep medical students focussed and to maintain their level of interest is a very challenging task for all the educators nowadays. It was reported that the average attention span of a medical student is 15 to 20 minutes at the beginning of the session.⁴ Today, more than 100 years after the Flexner report generated major improvements in US and Canadian medical schools, the general format of medical student education remains more or less the same. Faculty is being encouraged to move from being a "sage on the stage" to more of a "guide on the side".⁵ A sage on the stage is an instructor who transfers knowledge to the student through lectures alone, whereas a guide on the side provides support and correction to explore the topic independently or within a group.

This concept of flipped classroom is a combination of behaviourist principles and constructivist ideology. Unlike constructivism, behaviourism focuses mainly on the teacher as a center of instruction and content includes tutorials, lectures, demonstrations and other forms of teacher focused instruction. On the other hand, constructivism is based on the principle that individual uses prior knowledge and experience to build and understand the new concept.

King's ideal of the guide on the side is rooted in the constructivist theory of learning.⁵ This theory indicates that knowledge cannot be transmitted to another person. Infact, individuals possess information and they try to make sense of this information. On the basis of this information, Knowledge can be constructed or reconstructed by individuals. This construction and

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reconstruction is best done through the use of active learning strategies such as problem based learning, simulation, and think- pair-share.

Medical education is constantly evolving at most of our schools, that leads to many innovations in teaching strategies, such as problem based learning, team-based learning, and the use of simulation.⁶

Benefits of introducing Flipped Classroom Model

The concept of the Flipped classroom is not new; however; its importance has been highlighted by policy makers and scholars that really want to improve the health care education. Literature suggests that active learning is more effective than the traditional classroom lectures. Furthermore, students often get bored in traditional lectures that actually promote passive learning; hence it may also deprive students of rich educational experiences.⁷

In addition to that, in traditional lectures, faculty may not be aware of how much students have grasped the basic knowledge and information being shared within the class. Clinicians involved in teaching should consider the efficacy of their current teaching and learning strategies used to deliver the content.⁸

To make the teaching and learning more effective, the flipped classroom model (also known as the reverse, inverse or backwards classroom) has been designed as a student-centered approach. It permits both students and teachers to have one-on-one interaction. Instructors upload recorded lectures relevant to the topic online for students so that they can watch those at their own pace and acquire basic knowledge and facts about a subject.

In this way, a student may get an opportunity to watch the lectures at their own pace and as many times as required to master the basic concept. Instructors expect students to come prepared with a basic understanding of the topic to be discussed, so that students may better be able to participate and interact during class discussion, but they need someone in the sessions to act as a facilitator and mentors to guide them in problem solving, stimulate and challenge students to think productively and further encourage them to apply their theoretical knowledge in the real scenario. Open ended discussions in the class prepare students for success by promoting critical cognitive development and fostering innovation through collaboration.⁹

Nursing students and faculty shared their positive experiences when using the flipped classroom in nursing

education.¹⁰ Students come well prepared to the class to actively engage in collaborative learning through the use of case scenarios, small group discussions and other activities.

For introducing any new teaching or learning strategy, it is important to explain the concept behind using a particular teaching strategy. It is also important to present the supporting evidence from the literature why it is being used in other educational setups. Medical students usually accept change once they clearly understand the rationale of introducing such change. Once the students understand that the desired outcome would be the application, analysis and synthesis of course content rather than rote learning, then defensiveness for accepting the change decreases and their confidence to accept this new learning strategy certainly increases.¹¹

Limitations of Flipped Classroom

Despite of all the identified benefits, there are few limitations that need to be considered while planning to have a flipped classroom session such as,¹²

1. A qualified and experienced facilitator may not be able to produce a good quality video.
2. Students may not comprehend the video, and hence come unprepared for the in-class activities.
3. Students may need a lot of support to ensure they understand the material provided.
4. Students may not be able to clarify any queries that may arise while watching the video unless the instructor is present.
5. The flipped classroom strategy may not be considered as a best approach for second language learners or those with learning problems or challenges.

Conclusion

The introduction of any new teaching or learning strategy requires a shift in the minds of both educators and learners. They should realize that through active learning and technology-enabled flipped classroom strategies, students may develop higher order thinking skills and creativity. The flipped classroom is an instructional approach used by many educational institutions. However, what makes the flipped classroom innovative is that it merges the sage on the stage with the guide on the side so that all learning styles can be addressed throughout the course. Instructors in other health professions are using the flipped classroom approach to promote active, student centered learning and to empower students to develop higher order cognitive

skills and to engage in meaningful learning that would ultimately improve the delivery of health care.

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