EMERGING TRENDS IN E-LEARNING—WITH A REFERENCE TO FLIP LEARNING

Taiyaba Nazli, Ph. D.
Assistant Professor, Department of Education and Training, Maulana Azad National Urdu University, Gachibowli – Hyderabad-32. E mail: taiyabanazlimanuu@gmail.com

INTRODUCTION:

Flip learning has emerged as a new technique of teaching and learning through e learning. This novel instructional strategy has been found to be very effective in the content transaction. This modern technique has become very popular in the recent times. Right from the school education to the higher education the flipped classrooms has grown in popularity with a proven potential to increase student engagement with a thorough usage of technology involving students’ active participation in the learning process. The role of technology is crucial in this type of learning. The growing accessibility of educational technologies have made this type of teaching much easier who can explore, share and create the content also. The flipped classroom is a new concept with a little variation in the previous pedagogies such as active learning, peer instruction or blended learning that requires students to come prepared to the classroom by the self study and by discuss with peers for a purposeful academic activity. It is a kind of blended learning strategy. Here the greater focus is given to the students’ application of the conceptual knowledge gained rather than the memorization. This paper gives a detailed account of the new emerging trends in the E-Learning, particularly flipped classroom and flipped learning strategy. There are also other learning strategies carried out through the electronic media and are popular with the teachers and students. This paper briefly covers those teaching learning strategies also. Emerging technologies have great potential to participate and play an effective role in the universalization of education in India.

Flipped Learning has been defined as by a group of educators as follows:

*Flipped Learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject.*

Copyright © 2017, Scholarly Research Journal for Interdisciplinary Studies
A Flipped Classroom is one where students are introduced to content at home, and practice working through it at school. This emerging concept of ‘flipped classroom’ was introduced in the United States and later caught the attention of educational experts throughout the world. It can simply be defined “school work at home and home work at school” Flipped Learning is an approach that allows teachers to implement a methodology or various methodologies in their classrooms. It is an instructional strategy mostly carried out online that reveres the traditional environment of the classroom and is a type of “blended learning”. It moves the learning activities outside the classroom where students watch lectures, collaborate in online discussions with the guidance of the mentor or teacher.

The pioneer and the most popular contributor of this type of teaching learning process is Mr. Salman Khan who began recording his video lessons for his cousin to overcome her academic difficulties in the subject of mathematics. The student for whom these videos were recorded found them very useful because she could skip those of lessons which she had understood already and could focus repeatedly on those which she could not follow. These videos became so popular with the students that later Mr. Khan founded Khan Academy based on this model. And now Khan Academy became synonymous with the flipped classroom.

Based on these lines only flipped classrooms later originated in 2007 in Colorado due to the efforts of two concerned teachers, [Jonathan Bergman and Aaron Sams] who were worried that their students often missed their chemistry classes due to their other engagements. Hence they started recording their lecture and demonstration videos which they then posted on YouTube for students to access. Since then flipped classrooms have evolved with a number of variations with video lectures as their key feature. Sometimes the video lectures include embedded questions prepared by the instructor and students are required to read background materials or participate in online quizzes before coming to class. Sometimes Flipped Classroom models use audio recordings also.

Flipped Classroom and Blended Learning modes of instruction can be carried out in as well as out of the class room with the video lectures presented in between for the purpose of authenticating the learnt lessons. A flipped classroom provides pre recorded lectures including audio and video followed by the class activities. After watching the video lessons outside or inside the classrooms, students get engaged in the fruitful interaction such as question and answers sessions, discussions, practicing, clarifying academic doubts or learning.
at their own pace. Flipped classrooms are also referred as ‘inverted’ classrooms because in-class activities are held as out of-classroom activities.

Blended Learning and Flipped Classroom are not much different from each other, it is also called as Hybrid Learning. Both the styles and methods include off campus activities. According to Beck, ‘The terms “Hybrid” and “Blended” have been typically used interchangeably’ and both the approaches include traditional face-to-face and internet-based elements. But the U.S Department of Education distinguish between ‘blended learning’ and on-line learning, they differentiate these two on the basis that ‘face-to-face instruction provide the human touch which enhances learning where as in the blended learning approach students watch pre recorded videos before coming to the class with some back ground knowledge and then ask questions to clarify their doubts and involve in discussion with teachers. This becomes a blend of technology and classroom interaction and leads to the maximum academic learning.

The concept behind flipped classroom is to allow the students to fully utilize the technological resources and think independently to resolve their academic issues. It allows them to re think about their problems while doing the work. This activity helps students twice in learning, first with the video at home and later in the classroom providing the opportunity for personalization and an overall guidance from teacher. In a flipped classroom students access content on their own and practice under the guidance of teachers. While learning at home students can pause, rewind, re watch concepts and engage creatively and review the recorded lectures prepared by their teachers.

Educationists have given the following definition of a Flipped Classroom making FLIP as an acronym:

- **Flexible Environment:** Students are allowed a variety of modes of learning and means of assessment.
- **Learning Culture:** Student-centred communities of inquiry rather than instructor-prepared lectures.
- **Intentional Content:** Pacing the content in the most appropriate context – direct instruction prior to class for the individual use and the videos accessible to all students.
- **Professional Educator:** A reflective, accessible instructor who collaborates with other educators and takes the responsibility for perfection.
The characteristics of Flipped Classroom are:--
* Change in the classroom timings.
* Doing homework in the classroom.
* In-class activities such as peer-learning, problem solving, discussion.
* Pre-class activities.
* Post-class activities.
* Extensive and convenient use of technology; [watching video lectures].
* Builds strong teacher-learner bond.
* Improve students’ attitude, understanding, team work and adjustments with peers.
* Students can benefit from the class lectures at their own pace or at home conveniently.
* Enhances collaborative learning by discussing complex topics in small groups.
* It facilitates continued learning since the videos can be watched as and when required, helps in quick recalling and new adaptations for new lessons.

One of the striking feature of this method is that the valuable time of the class is spent in the dissemination of knowledge. Teachers distribute the information individually or to the group for self-learning and exploring. The students who received tasks may complete it by searching, integrating and discussing with the help of advanced ICT and finally display the learnt lessons in the classroom in a systematic manner. Teachers should play a significant role by guiding them to present they have learnt so that students learn to think independently at their own as a personalized learning, changing the teaching method into a vivid and interesting experience.

In the new era of college education, flipped classroom will overtake blended learning, inquiry learning and other teaching methods. Its purpose is to make learning more flexible and active, encourage students’ participation. The contribution of ICT is unavoidable in the process of realization and popularization of “flipped classroom”, students learn with the online courses and lectures through Internet besides communicating and interacting with teachers and peers without going to the classroom. Therefore, the implementation and promotion of “flipped classroom” changes a teachers’ role, mode of teaching and the management mode promoting a modern and flexible style of teaching and learning. The joint propulsion of the three links can not only help students to develop the ability of autonomous learning effectively, but also can cultivate the tacit understanding between students and teachers, to enhance the efficiency of team work. [Ya, Yung and Cheng-2009]. Flipped
classrooms show promising results. There is growing evidence that the flipped classroom model can improve student achievement in almost all subjects. According to the Flipped Learning Network, 71% of teachers who flipped their classes noticed improved grades, and 80% reported improved student attitudes and 99% of teachers reported that they would flip their classes again the following year.

After the joint efforts of several generations of education scholars and college students, the “flipped classroom” [Zhong, Song and Jiao-2013] has achieved good stage progress in college English teaching classroom Advantages and challenges of flipped learning.

The results of this synthesis indicated that flipped learning provided various benefits and challenges for students and instructors. The benefits can be listed as flexibility, improvement in interaction, professional skills, and student engagement. Challenges included increased workload for faculty, student resistance, lack of opportunities for just-in-time questions, technical issues, decreased interest and neglected material.

**Advantages and Challenges:**

The results of this synthesis indicated that flipped learning provided various benefits and challenges for students and instructors. The benefits can be listed as flexibility, improvement in interaction, professional skills, and student engagement. Challenges included increased workload for faculty, student resistance, lack of opportunities for just-in-time questions, technical issues, decreased interest and neglected material.

**Literature Review:**

One of the most commonly cited benefits of flipped learning was *flexibility* (Buechler *et al.*, 2014; Kiat and Kwot-2014; Mok-2014; Simpson, Evans, Eley and Stiles, 2003; Velegol *et al.*-2015). An added value of the flipped approach was students could pause and rewind the videos, take notes and solve problems while watching the lecture videos. Having access to course materials for 24/7 provided flexibility for students with different learning preferences and personal commitments. This flexible teaching and learning environment also created time for complex problem solving (Ankeny and Krause, 2014; Mok-2014) and opportunities to cover more materials (Mason, Shuman and Cook-2013a, 2013b).

The rationale behind flipped learning is to use face-to-face class time for complex exercises where students can interact with each other and with the instructor. This synthesis concluded that students enjoyed *working with their peers* (Bailey and Smith-2013; Ghadiri *et al.*, 2014; Love *et al.*, 2014; Talbert and Valley, 2012) and having the instructor available for help.
Student-centred instructional approaches like flipped learning not only help students learn the content but also provide opportunities to improve **professional skills** that “today's competitive global market and changing work environment demand engineers to possess” (Kumar and Hsiao, 2007- p. 18). Several authors argued that flipped learning contributed to students' professional skills such as life-long learning (Luster-Teasley, Hargrove-Leak and Waters-2014), learner autonomy (Kim, Kim, Khera and Getman, 2014; Mok- 2014), critical thinking (Chetcuti et al., 2014) and interpersonal skills (Yelamarthi et al., 2015).

Another benefit that this synthesis revealed was **student engagement** (Lavelle et al., 2013). Several researchers found that students came to class better prepared (Chetcuti et al.-2014; Jungic, Kaur, Mulholland and Xin,-2015; Mo-2014; Papadopoulos and Roman- 2010), and they devoted more time and formed better study habits compared to traditional classroom approaches (Papadopoulos and Roman- 2010).

The application of “flipped classroom” in teaching practice may solve the flaws in traditional education method of English courses in colleges and provide new teaching concepts and ideas for college English education classroom. This great attempt of education innovation will directly act on students, and the largest beneficiaries are college students, providing them with not only the excellent teaching practice experience, but also help them to develop good study habits, which may lay a solid foundation for the life, learning and work in the future. This paper will introduce the concept and significance of “flipped classroom”, analyze the current application situation and existing problems of “flipped classroom”, and then give suggested measures on “flipped classroom”.

**6. Conclusion**

As the innovative teaching practice mode under Chinese higher education reform, “flipped classroom” has made outstanding contribution to China’s college English education. As for college English teachers, this teaching mode has got rid of the traditional classroom teaching mode, to take full use of the classroom time and resources as well as improve the classroom teaching efficiency; as for the students, they can improve their interest in learning and their autonomous learning abilities. In view of the current situation of China’s college English teaching, although differences exist between the development of “flipped classroom” itself and the agreement of China’s education practice, it will play its excellent effect through
common effort of all sections of society as well as teachers and students. The positive role of “flipped classroom” in college English teaching should not be ignored, which has injected new vitality for the current higher education reform in China.

Cite this paper

There is also some danger that the flipped classroom could be seen as another front in a false battle between teachers and technology. Yet Bergmann and Sams emphasize that the “only magic bullet is the recruiting, training, and supporting of quality teachers.” And while Khan Academy’s prominence engenders fear of standardization and deprofessionalization among some critics, Bergmann, Sams, and Smith see instructional videos as powerful tools for teachers to create content, share resources, and improve practice. Smith admits that if such tools were available when she first started out, she “would have run to this every week when planning.”

It seems almost certain that instructional videos, interactive simulations, and yet-to-be-dreamed-up online tools will continue to multiply. But who will control these tools and whether they will fulfill their potential remains to be seen. As Scott McLeod, one of the nation’s leading thinkers on educational technology and the director of the UCEA Center for the Advanced Study of Technology Leadership in Education, observes, the “reason Sal Khan is so visible right now is that nobody did this instead. It would have been great if the National Council of Teachers of Mathematics had been doing this, but someone from the outside had to fill the vacuum.” His guidance to educators: “Start making!”

Advantages and challenges of flipped learning

The results of this synthesis indicated that flipped learning provided various benefits and challenges for students and instructors. The benefits can be listed as flexibility, improvement in interaction, professional skills, and student engagement. Challenges included increased workload for faculty, student resistance, lack of opportunities for just-in-time questions, technical issues, decreased interest and neglected material.

This systematic review of research on flipped learning in engineering education is timely as the flipped approach has gained popularity amongst engineering educators. It is imperative to understand the current practices in order to shed light on future implementations. The review of 62 articles included in this synthesis was framed around four major research questions.
First, the findings indicated a widespread adoption of flipped learning in various sub-fields of engineering. Second, there is a paucity of the report of theoretical frameworks guiding the development and evaluation of the flipped approach. Evaluation methods have mostly been limited to quantitative data drawn from course assessments and surveys, and there is a scarcity in qualitative research to understand phenomena in depth and within specific contexts. Third, many researchers found that students in the flipped classroom had learned as much as their counterparts in the traditional lecture-style format if not more. Fourth, flipped learning provides several benefits and brings some challenges for instructors and students. Synthesizing the existing research on flipped learning, this study provides recommendations for researchers, practitioners and policy-makers to develop research-based action plans in how to develop and evaluate flipped classrooms.

A systematic review of research on the flipped learning method in engineering education

Authors
- Aliye Karabulut-Ilgu,
- Nadia Jaramillo Cherrez,
- Charles T. Jahren

First published: 20 February 2017 Full publication history
DOI: 10.1111/bjet.12548

Several studies reveal positive learning outcomes. For example, study results published by BMI medical education reported examination scores of 88.8% compared to 86.4% for traditional students (2011). A survey of students at the University of North Carolina who took part in a flipped course for Basic Pharmaceutics showed that over 85% of respondents preferred the new approach compared to traditional lecture-based teaching afterward. A very recent article from the College of Westchester, flipping 30-50% of course material over the course of 2014 resulted in a 14.5% drop in what they call “D, F and W grades” (grades of D, F, or Withdrawal).

The Flipped learning network, in collaboration with George Mason University and Pearson conducted a review of research. Their findings from a review of research, mostly from the point of view of teachers who have implemented a flipped approach, are that students are more engaged and performing better, while the teachers are enjoying the increased interaction with students.
Some results were more inconclusive. A quantitative comparison done by students at Brigham Young where a non-flipped classroom was compared with an active flipped classroom showed learning outcomes that were very similar. Interestingly, in both classes, students ranked interaction with the instructor as more influential to their learning than what they did at home. Same results with a comparison of two algebra classes at the University of Colorado. Their conclusion was that the most important aspect of teaching in a flipped learning model was face-to-face class time being used for cooperative activities as well as dynamic and active, inquiry-based learning.

Even Aaron Sams and Jonathan Bergmann, the acknowledged creators of the concept of “flipped learning” maintain that flipping a classroom is not about the video and that not everything should be taught with one. They emphasize that far more important is how teachers engage students within the classroom.

My own conclusion is that having a flipped approach to your teaching can be beneficial depending upon what the learning objective is. It certainly does not seem to be detrimental to learning, providing students with another possibility to learn in a way that suits them. Whatever method is employed however, the most important part of puzzle continues to be the teacher and the quality of interaction between themselves and their student.

References:

10 Published Results Supporting the Benefits of Flipped Learning

http://www.biomedcentral.com/1472-6920/14/181 visited 26 March 2015 Yes, flipped learning is hot, but what does the research say about it?

Thursday, 26 March, 2015 - 16:19
Produce & educate

Goodwin, Bryan and Kirsten Miller March 2013 “Research Says / Evidence on Flipped Classrooms Is Still Coming In” ASCD (Association for Supervision and Curriculum Development)

Jenson, JL, Kumer, Godoy, Spring 2015 “Improvements from a Flipped Classroom May Sim