



## THE FLIPPED CLASSROOM

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### Abstract

Educators now believe that traditional teaching methods, in which students remain passive and the teacher has complete authority, are ineffective. Changes in information and technology have an impact on education as well. In our modern world, the concept of learning, curriculum, teachers, learners are constantly altering, and as a result, learners' expectations from the learning process are changing as well. As a result, various teaching modes are required to adapt to the needs of learners with differing expectations. One of such models is the "flipped classroom" which has recently gained popularity. The relatively efficient use of extra-curricular time is implemented in this classroom. Flipped classroom is described as doing homework and assignments that are supposed to be taught outside of class inside the classroom, and the learning and teaching is conducted out-of-class, so everything is flipped. This article aims to provide information about the mentioned model, its emergence, development, pros and cons, as well as the ways of implementing it, supported by the relevant literature.

**Keywords:** flipped classroom, traditional classroom, university, podcast

### Introduction

In 2007, two chemistry teachers from Colorado, US, Dr. Jon (Jonathan) Bergmann and Dr. Aaron Sams, devised a method of reteaching lessons to missing members of the class. They purchased special tools and software to film the classroom teaching material and then uploaded the recordings to the Internet. Those absent students were able to watch the skipped class and keep up with the curriculum (T.Bill, 2012). On the other hand, those participated in the class used the posted video to recap and validate what they had learned during the seminars. The well met result caused the professors to understand that they needed to fundamentally develop innovative teaching methods, and a novel "the flipped classroom" appeared. The flipped classroom is a "pedagogical model where the typical lecture and homework elements of a course are reversed" (Shi-Chun Du, 2014). It "flips" the traditional teaching approaches by providing lectures outside of the classroom through the internet and bringing homework into the school. Students watch online videos at home, while class time is spent on debates, assignments, and summaries. The video lesson is often regarded as a key component of the flipped classroom model, with such lectures produced by the tutor and uploaded to the web or chosen from an online archive. A podcast can be a video as well as other audio medium and may be easily accessed and viewed today, which has made it so popular nowadays.

### Different Views on the Flipped Classroom

The flipped classroom has been one of the most debated topics in academia since the launch of such format classrooms as in Khan Academy, Coursera or so forth. However, it is assumed that online



learning and such academic innovations are beneficial in general, although, despite all of the buzz about the flipped classroom, there are benefits and drawbacks of this method.

## The Advantages of the Flipped Classroom

Productive and interactive learning, problem-based and project-based study are some of the methods used in the flipped classroom (M. Prince, 2004). It has many advantages for both teachers and students (S. Zappe, 2009), refer to Table 1.

Table 1. Advantages of the flipped classroom

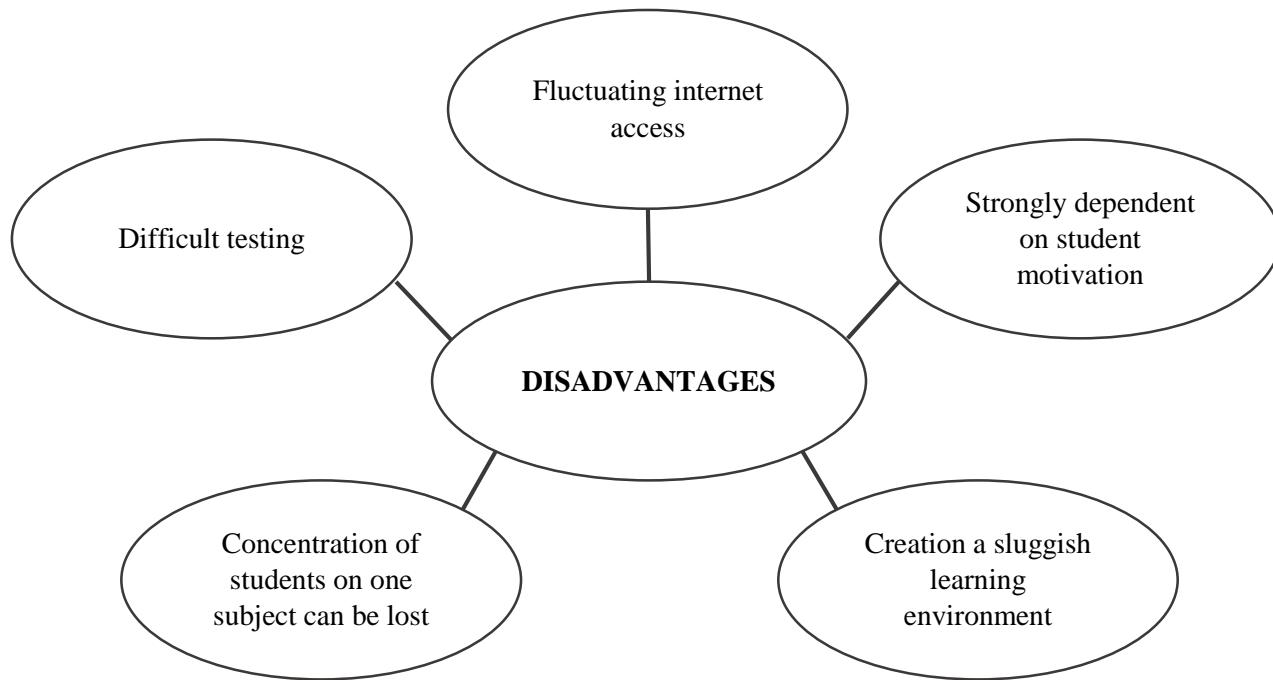
<b>Advantages</b>	
<i>For tutors</i>	<i>For students</i>
More time can be spent closely with students about the original research	Students define their own learning speed
Improve the attitudes of students	Discuss ideas with classmates
Teachers can group students together	Access to course 24/7
Students' abilities to tackle open-ended questions are improved	Time in the classroom is used more effectively, hence, students get higher results from the tests when compared to traditional method results (several studies suggest)
Students are more active during learning process	Homework is done in class and students can ask questions about the subjects they have difficulties in

In the standard way of teaching, students always attempt to memorize what is said by the teacher immediately. They are unable to pause and consider what is being explained, and as a result, they can miss important details when trying to transcribe the taught material. The use of video and other types of podcasts, on the other hand, gives students power over their courses: simply review, rewind, and fast-forward as needed. Lectures may be watched several times - that could be beneficial to those who do not speak English as a first language. Simultaneously, joint learning initiatives can promote social engagement, collaboration, networking and cross-cultural diversity among students, consequently, assist and support one another during the collaborative learning and enhance different levels of skills and qualifications. During class time, teachers can assign experiential tasks, group projects, problem sets and exercises that originally were given as individual home assignments in traditional learning. That helps students develop analytical and essential skills much stronger (A.H. Charles, 2013). Moreover, students in a traditional classroom take in-class seminars and then complete the following exercises at home. In the flipped classroom, on the contrary, students are encouraged to read papers and watch videos at home prior to working on assignments alongside their classmates during school hours. Such approach improves teamwork skills, boosts knowledge and confidence. Finally, the educator can use class time to interact individually with every student who needs additional assistance.



## The Disadvantages of the Flipped Classroom

Certainly, as with everything, the flipped classroom has several drawbacks as well (refer to Figure 1). One of the cons is that everyone has their own learning pace, although this is largely defined by the students' self-motivation. Some students are less inspired than others, and this mode of study can affect them to do less than required (J. Krueger, 2012).



*Figure 1. Disadvantages of flipped classroom*

Any student is normally given a test occasionally to see how much they have improved over time and the test dates are set differently to every learner. When students are dreading the next exam, this may cause them to fall behind the studies. Additionally, those from low-income communities may not always have access to the personal computers and Internet required by the flipped classroom. They would be expected to use public computers or networks at libraries or other facilities, which in turn can cause other serious issues such as availability or extra noise (for instance, in internet cafés). Another disadvantage is that learners spend a significant amount of their "homework hours" in front of a computer screen, increasing their sedentary time and making it difficult for them to walk away from their laptops, televisions or other electronic devices.



## Implementing the flipped classroom

The flipped classroom, unlike the typical classroom, requires the use of external resources such as a videographer, operator, editor, business manager, IT expert, platform specialist, and so forth. Hence, it is necessary to ensure efficient cooperation between technical, social and teaching units (refer to Table 2).

**Table 2.** Cooperation between units

The Flipped Classroom		
Technical unit	Social unit	Teaching unit
Learning support Testing service	Universities Education authorities	Learners Educators
Cloud computing Big Data	Commercial organizations Employers	Teaching Research Learning Analytics

Science and technology play the crucial role in the development of the flipped classroom. There is a high need to create new tools and resources in order to ensure the out-of-class component of the program. Students would have access to a broader range of educational opportunities thanks to the rapid development of portable mobile devices. With the widespread use of the internet and information technologies, more audio and video learning opportunities are now available. A more developed social network provides a stronger forum for learners all over the world, lowering the barrier to online learning significantly. According to Professor Daphne Kohler, video costs are decreasing, making online teaching and learning publicly available and affordable (FT Chinese.com, n.d.). "The modern world shows that the Internet is a great killer of any conventional company that focuses on selling the content," Dr. Nathan Harden says (H. Nathan, 2013). In the flipped classroom model, it is easy to make a mistake. While the concept is simple, a successful and productive classroom requires careful planning. It is more efforts demanding from the faculty to make videos, and extracurricular and curricular components must be carefully combined for learners to comprehend. Thus, implementing a flipped classroom requires more energy and additional qualification on the part of the educator.

## Conclusions

The flip introduces a new teaching and learning technique and modality, requiring teachers to relinquish their front status in favor of a more cooperative and relational approach to the teaching process. Similarly, students' positions also shift from passive observers to active participants. The flipped classroom places more pressure on students and provides them with more momentum to study. Although it is still indefinite how the new teaching method will develop in the future, current indications suggest that it will have a significant effect on typical colleges and universities. Combining conventional teaching approaches and online learning would undoubtedly contribute to get a high-quality education by the academic stakeholders.



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