



## Awareness of Flipped Classroom of Teachers and Students at Dong Nai Technology University

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**Abstract:** This study was conducted to survey the awareness of teachers and students at Dong Nai Technology University (DNTU) on knowledge related to a flipped classroom. The results showed that most of the participating teachers and students agreed that the flipped classrooms were fun and could be effectively used to improve student self-learning and motivation. However, research also indicated some of the challenges that this type of learning could bring were the problems related to technology itself, the time it takes for teachers to prepare the lectures or materials given in advance and a small number of students who would not proactively self-study, leading to a drop in their results. The study also proposed some solutions for educators and teachers to improve the effectiveness of this interesting teaching method.

**Key words:** active learning, flipped classroom, motivation, self-learning

### I. Introduction

Ability to tackle homework of students is one of the most important topics of education. If students do not understand the lesson during their classes, they may have difficulty completing their homework, and possibly waiting for inquiring at next class. In this scenario, the teacher will have to spend additional time solving the homework instead of instructing the new lessons. It raises some questions, such as how you could make the most of face-to-face time or how could teachers provide appropriate assistance to students with homework and standardized test preparation. To meet the needs of students, teachers can use a range of modern teaching strategies and methods. The flipped classroom, which moves the lecture outside the classroom via technology and moves homework and exercises with concepts within the classroom via learning activities, is one of the latest teaching strategies in the education sector that can be used to reach every student every time.

The most significant benefit of using a flipped classroom in teaching is increasing one-on-one interaction between teacher and students. This type of class can change the role of the teacher from the presenter of content to learning coach. By structuring assignments which allow students to manage themselves in small groups or individually, teachers do not have to stand in front of the students and give the lectures from forty-five to sixty minutes at a time, they only can answer questions, work with small groups, or guide learning of each student individually (Lage, et al., 2000). When students are working on an assignment, they notice a group of students who are struggling with the same thing, the teacher automatically organize the students into a tutorial group. The role of the teacher has changed, to more of a tutor than a deliverer of content; therefore,

students are working collaboratively to achieve their learning outcomes, and they will not rely on the teacher as the main resource of knowledge.

Prince (2014) stated this approach uses class time for a variety of active learning techniques, or techniques that require the students to engage in their own learning with meaningful activities. According to Bergman & Sams (2012), who were known as the flipped mastery model, suggested the traditional lecture or content was moved outside of the regular class time and often delivered through electronic means. Class activities, combined with online videos or other out-of-class activities, provide students with multiple ways of learning course materials.

The flipped classroom approach was chosen for this study due to its flexibility and possible adaptability to cross cultural teaching situations. To achieve the research purposes, we could try to seek the answers for two following research questions (1) What are the advantages and disadvantages of flipped classroom? and (2) To what extent do DNTU teachers' and student's understanding of a flipped classroom lead to an excited participation of flipped classroom?

## II. Review of literature

### *An overview of flipped classroom*

Flipped classroom or inverting the classroom is activities or events that have traditionally taken place inside the classroom now take place outside the classroom and vice versa. "The use of learning technologies, particularly multimedia, provide new opportunities for students to learn, opportunities that are not possible with other media" (Lage, et al., 2000, p.4). Arnold-Garza (2014) defined the flipped classroom was the model in which students used classroom time to particularly enhance what they had mostly learned at home by completing worksheets, doing lab activities, participating in debates or projects.

Lage et al. (2000) made a plan for a flipped classroom which required the available resources and used them to best suit the unique situation, as well as possible input and collaboration from a teaching environment. The authors gave a guideline with four following steps.

**Step 1:** Students were expected to read about the given topics before the first day of discussion and they were also encouraged to view lectures of the topic being discussed. These lectures could be accessed in a plenty of formats such as videotaped lectures or lectures in PowerPoint with sound. Some handouts were often used as the basis for taking notes while watching or listening the lectures or finding a reference point.

**Step 2:** Students were demanded to prepared the relevant material for class discussing. In each class, instructors started by asking if there were any questions. If a student had not understood something in the book or on the videotape or wanted an additional example, they can ask such questions at this time. If there were no questions, the instructors would not lecture. Because the lack of questions would be interpreted as a sign that students understood material completely.

**Step 3:** The worksheets were simple exercises designed to provide students with a first look at the material. Before attending the first class period on a topic, students were expected to have completed these worksheets. Students frequently formed groups, discussed their answers, and then presented their work to the rest of the class.

**Step 4:** The review questions were more challenging. They were created with the intention of having students apply the concepts being discussed. Students would work in small groups to answer these review questions and then present their findings.

There are variety of approaches to help students get more interested in active learning through the flipped classroom. Teachers or lecturers should choose the best one which is suitable for the students and the specific learning environment at their school. Farmer (2018, p.17) proposed "a visual idea of how to a flipped classroom could work in practice", which could be chosen to applied in a lot of situations, given in Figure 1 below:

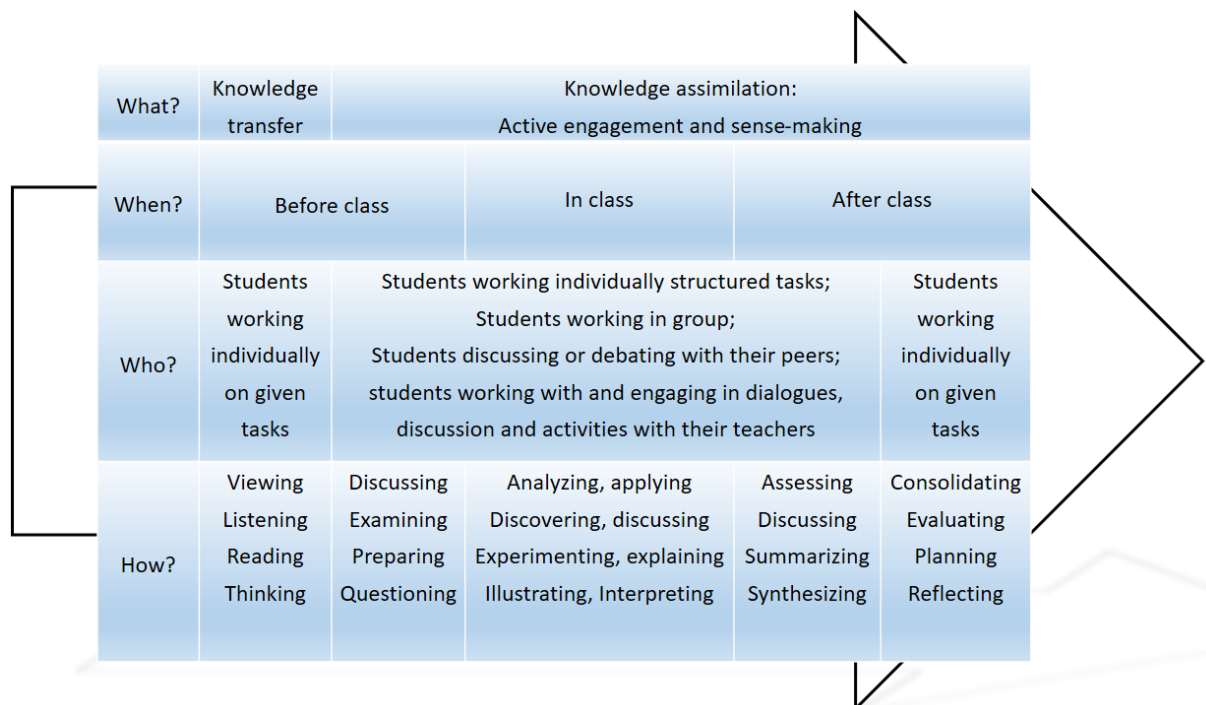


Figure 1. An approach to the flipped classroom (Farmer, 2018, p.18)

### **Advantages of flipped classrooms**

*Understanding subject better:* Traditional classrooms provide students with one way of looking at a subject, whereas flipped classrooms encourage students to find many different ways of looking at a topic, including different diagrams, wording, and videos. Therefore, students could enrich their knowledge by researching and discussing themselves, they gain a deeper understanding of the subject and related subjects (Arnold-Garza (2014).

*Increasing interaction:* The flipped classroom model allows for more one-on-one time between the teacher and students. This essentially means that the students will have more time to ask questions or seek assistance if they have any questions. Students essentially have more group work or student collaboration time to cover subject activities, discussions, and peer evaluations (Gilmartin & Moore, 2010).

*Motivating students:* Students are more interested in flipped classrooms or their lectures when they are researching, completing activities or discussing the subject. Students are researching and discussing themselves, so they gain a deeper understanding of the subject and related subjects (EER, 2011).

*Attracting parents' attention:* According to Bergmann & Sams (2012), parents would have more access to the learning materials and their children's performance. Parents can generally assist if there are any significant issues with the student's understanding.

*Freedom for teachers:* Using the flipped classroom, teachers or lecturers have more freedom to spend time with students who they believe require more support or assistance.

### **Disadvantages of flipped classrooms**

*Computers and internet access:* Lack access to the internet or a home computer can seriously limit access to the learning materials provided. This may significantly make worse the digital divide and learning issues already being experienced by students from low-income families. (Ross, 2015; Tomlinson, 2015). A classroom can become distracted and disordered rather quickly if there are interruptions or technical failure. Therefore, the teacher should have a back-up plan to make reasonable adjustments (Rivera, 2016).

*Teachers' time & effort:* The time and effort required by a teacher to create flipped class material is greater than that required for a traditional class. However, these materials could be re-used the particularly next year, really contrary to popular belief (Buabeng-Andoh, 2012).

*Student preparation:* The flipped method does depend on students preparing before going to school. If the student is already a really social loafer, then this method will essentially mean they don't pretty complete their fairly own work or learn.

*Increasing students' screen time:* Due to the nature of this method, activities and discussion required, computers or tablets tend to be used more than usual which increase screen time in students (Rivera, 2016).

### III. Research Methodology

#### **Context and Participants**

Dong Nai Technology University (DNTU) was founded 15 years ago, it is located in Quarter 5, Trang Dai Ward, Bien Hoa City, Dong Nai Province, Vietnam. Overcoming the difficulties and challenges of its founding days, DNTU constantly develops modern facilities and equipment, with appropriate training programs and is regularly updated, with highly qualified management and professional staff serving the modernization and industrialization of Dong Nai province, and surrounding areas. DNTU has recruited and trained 17 undergraduate and 2 graduate majors. The number of students is increasing in both quantity and quality every year. Those figures honestly reflect the DNTU's effectiveness and training capacity. DNTU is also one of the pioneers in the application of technology in teaching, we have used many software to apply digital technology in teaching such as CANVAS, MOODLE LMS, MS TEAM, etc. Therefore, the application of flipped class as our research is practicable and effective.

Faculty of Foreign Languages (FFL) at DNTU was established 7 years ago. English majored students of FFL are well equipped with specific language skills and specialized knowledge for their future so that they will have the ability to adapt to a variety of fields, and choose from careers as diverse as international trade, business management, human resources, translation or English teaching.

The individuals who participated in this study are five senior students and three English lecturers from DNTU. The first group of participants are English majored students, two males and three females, whose ages ranged from 20 to 27 and all they have studied English over 10 years. The second group of participants is comprised of three English lecturers. They were chosen because all of them have taught TESOL courses for FFL at DNTU during the period of the study. The ages of the participants ranged from 30 to 50 years old and their teaching experience is 5 years, 12 years and 21 years respectively.

#### **Research instrument**

For exploring the teachers' and students' awareness of flipped classroom, the authors used the interview questions to gather the qualitative data. The authors conducted a qualitative research because it "is used as a broad explanation for behavior and attitudes, and it may be complete with variables, constructs and hypotheses" (Creswell, 2009, p.61). Based on the inductive logic of research in qualitative study of Creswell (2009, p.63) and seven stages of an interview investigation of Kvale (cited in Cohen, 2007), the authors adapted a process of research design below:

- 1 – Understanding: identifying the themes that the interview questions will be addressing.
- 2 – Designing: planning the interview questions based on themes.
- 3 – Interviewing: conducting interviews with the selected participants.
- 4 – Collecting: gathering the participants' responses in detail.
- 5 – Analyzing: examining the interview transcriptions based on data analysis process.
- 6 – Verifying: accounting for credibility and trustworthiness of the gathered data.
- 7 – Reporting: writing and sharing the findings of the conducted interviews.

To gain the purposes of this research, the authors wanted to know the students' and teachers' impressions on flipped classroom, their knowledge of advantages and disadvantages of this approach and to what extent they would like to apply a flipped classroom or to take part in a flipped classroom in their experience. Seven questions for students and six questions for teachers were sent to them via the emails. We wanted to give them a lot of time to ensure that participants had the freedom to give their own answers as fully as they wanted. It did ensure that all the participants well understood the approach, we gave them some information about flipped classroom at the beginning of the interview question form.

#### IV. Results and discussion

##### ***The benefits of a flipped classroom***

All five student participants thought that they would be less frustrated with their homework if they could take part in this type of classroom. They were able to ask questions and receive instant, tailored responses. They were able to delve deeper into subjects and complete their homework quicker and more easily.

To the teachers, they thought that they would help students understand concepts better by putting them into practice. They also had more discretion about how much time they spend with each student. They could design and edit the lectures until they felt satisfied and the lectures can be reused as many times. The teachers participating also said that this approach could help parents involve more about their children's learning.

##### ***Challenges***

Two out of three participating teachers believed that flipped classroom was a time-consuming process at the beginning because of finding the right videos, materials, and other items to keep the lessons moving and engaging students. However, after applying the flipped classroom for the first time, they would be able to gather and accumulate a variety of tools to use in future endeavors.

"How can I solve if my students don't finish the work?" was the prominent question posed. There should be the flexibility during the time to complete and revise the materials when applying the flipped classroom model which enables the teacher to adapt contents to individual needs. However, if students fall behind regularly, their subject awareness and grades will suffer.

This approach puts students under the pressures of getting knowledge and self-studying, it will take them a certain time to get used to this learning style. Therefore, teachers should clarify all requirements, instructions and guidelines from the beginning of each lesson so that students can catch up with this method as quickly as possible.

##### ***Participants' awareness and attitudes***

The first question was about what teachers/students were thinking when listening to the flipped classroom. This served to give them a general idea of the subject of the interview. For the group of students, all of them had never heard about this method before. After reading the given information, they understood how it worked and they found it interesting. Some students believed that flipped classrooms were a good idea for all types of students, whether they were fast or slow learners. During their school years, the students were unable to understand several concepts at the same time as the teacher lectured, but there was a good possibility that the instructor would be busy with the next chapter the next day, so they could only ask one or two questions to the teacher. However, if the flipped classroom were applied, they could read materials in advance or reread the chapter later and tried to clear up their questions by themselves.

The group of teachers with extensive teaching experience have learned about this approach and have even tried it in their classrooms. It was a fantastic idea, particularly in the technological age, one teacher said, but it was not feasible for all demographics. Some students seldom attend school and find the concept of homework absurd, since they seemed to lack the motivation of work or do something at home, these students don not

want to attend a flipped classroom. We might argue that the flipped class would be more important to them, but some of the students were uninterested in something.

## V. Recommendations

This research showed some useful results because it confirmed that flipped classrooms had both positive and negative outcomes. Flipped classrooms have gotten a lot of interest of many educators because they have the potential to improve learning outcomes and efficacy not only in high school schools, but also in university classes. However, there are some drawbacks to this process. Combining comprehension and consistency appears to be too difficult. Although a flipped classroom improves educational impact, it is difficult to achieve both necessary results at the same time. It is difficult to combine a flipped classroom and active learning at the same time.

For the flipped classroom to be an effective teaching technique, a number of processes appear to be required. Morgan (2014) asserted that the most important way in providing materials is a teacher understanding how students learn. Mok (2014), combined the flipped classroom with other pedagogies such as differentiated instruction for students of various abilities to make a more effective learning environment. In this case, a lecture will address some, if not all, of the issues that arise. Additional video clips and optional analysis on subjects can be prepared to appeal to all students, both excellent and non-proficient ones. Learners must plan for each session by watching the video lectures that have been assigned. Learners should also be aware of the flipped classroom's intent and interact with one another.

It was critical, according to Bergmann et al. (2011), to create an environment in which students took responsibility for their own learning. Before discussing an idea with others, students must consider and work through it in order to make the necessary connections (Honeycutt and Warren, 2014). Students should be aware of their roles in this modern learning environment as well. According to Enfield (2013), flipped classrooms were effective in assisting students in learning content and may improve their ability to learn independently. This was an opportunity for curriculum renewal and the creation of a more student-centered approach.

## VI. Conclusion

The flipped classroom model has the potential to enable teachers to foster critical thinking and independent working in their students, thereby encouraging lifelong learning and better preparing future graduates for their respective work environments. However, there is a risk that educators who are updating their curriculum will not fully understand the pedagogy of how to implement the flipped classroom effectively. There is no single model for the flipped classroom at this time, but key characteristics of the flipped learning approach include materials given in advance, instructor knowledge of students' comprehension, and higher-order learning during classes. Productive student learning that encourages critical thinking, as well as increased student participation both inside and outside the classroom, should be among the outcomes of successfully implementing a flipped class approach.

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