

## Chapter 2

### Literature Review

The literature review of this study includes two main areas:

1. Flipped Classroom
2. Motivation in Learning

#### Flipped Classroom

##### *Definition of Flipped Classroom*

Zainuddin and Halili (2016) define a flipped classroom as an approach to learning and teaching that allows students to watch videos of the lessons outside of class, and complete class activities about the lessons in the classroom.

Long, Commins, and Waugh (2016) stated that the flipped classroom model is the instructional learning pattern where students learn basic knowledge about the subject before coming to class, and then do the classroom activities in class.

Shu (2015) defined a flipped classroom as a model of learning which reverses how the learning time is spent in and out of the class to shift the ownership of learning from the teachers to learners.

From the definitions above, a flipped classroom is a learning approach model where learn by watching videos about the lessons outside of class, and do extended activities about the lessons during the classroom time.

The flipped classroom model was founded in 2004 by Aaron Sams and John Bergmann, two science teachers from Colorado in the United States. They recorded videos and prepared instructional materials about their lessons for students who were absent because of sickness or extra-curricular activities, so that their students could catch up on the in-class learning context (Bergmann and Sams, 2012; Saban, 2013). The flipped classroom has transformed the manners of traditional teaching methods. It is a teaching approach where students receive the learning content in video forms and study it before coming to the classroom. When students are in the classroom, they practice and develop their skills (Bergmann and Sams, 2012). A flipped classroom is also known as an “inverted classroom,” which could be indicated as a pedagogical approach of technology integrated learning aimed to fill gaps in traditional instructional models (Ojalvo and Doyne, 2011).

Herried and Schiller (2013) stated that the flipped classroom is a switched or flipped pedagogical strategy. It is the strategy that uses technology to provide learning support for students, and minimizes the amount of lecture and maximizes the interactions among teachers and students (Bent, 2013).

Generally, in the traditional classroom, students learn by listening to the teacher or lecturer in class, taking notes about the information that the teacher presents, and then completing homework at home. Homework, ideally, should be done at home or after class. For the flipped classroom technique, homework will be done in class, therefore, students need to study the lesson before coming to class. The lesson can be learnt via recorded video, the internet, or other channels, online or offline. By doing this, students will more actively participate in the learning activities during the class.

In flipped classrooms, teachers no longer stand in front of the classroom teaching and talking for the whole classroom period. Teachers' roles have changed from teachers or presenters to learning coaches or facilitators. This allows the teachers to move around the class monitoring and helping with student work. Interaction between students is increased because they can help each other learn and work together (Bergmann and Sams, 2012). These could be the reasons why flipped classrooms have become more popular implemented by teachers from all over the United States (Lambert, 2013) and all over the world.

The principles of the flipped classroom were stated in a research article by Demirel (2016) who stated that there are four pillars of flipped classroom learning: flexible environment, learning culture, intentional content, and professional educator.

*Flexible environment* is said to be the primary key to flipped learning since students feel more comfortable with getting assistance from their classmates or teachers. This allows various learning modes such as group work, individual work, research, performance, and assessment.

*Learning culture* is shifted from teacher-based to student-based. This allows students to actively learn at their own pace.

*Intentional content* refers to the content that needs to be taught directly. Teachers can emphasize or review this content during classroom time.

*Professional educators* are the key factors in flipped learning who decide on content and materials, choose the right strategies, and expand classroom activities.

### *Related Research*

A research study by Kathleen Fulton (2012 cited in Herreid& Schiller, 2013) defined the seven benefits of the flipped classroom as follows: students can learn at their own pace; doing “homework” in class could manifest better insight of student difficulties and learning styles; instructor could easily change and update the curriculum and provide it to students at any convenient time; classroom lessons can be used more effectively and creatively; instructors can use the method to report increased levels of student achievement, interest, and engagement; learning theory supports the new teaching approaches; and the use of technology is flexible and appropriate for “21st century learning.” These benefits that Fulton describes suggest that the flipped classroom can enhance students’ motivation for learning as the level of achievement, interest, and engagement rise.

Findlay-Thompson and Mombourquette (2012) have studied the results of using a flipped classroom in an undergraduate business course at Mount Saint Vincent University. His finding showed that there were no differences in how the teacher graded assignments, however, the students admitted they felt they did better in the flipped classroom because they had more chances to participate in class and prepare themselves before class. Findlay-Thompson and Mombourquette also suggested that in order for students to be successful in using flipped classroom, students need to clearly understand the purpose of this approach and the expectations for this new learning style. Moreover, the lecturers must be trained in how to implement a flipped classroom in classes, as it is not as easy as just recording videos and letting students do assignments or activities in class. In the end, this in-class research has confirmed that flipped classroom teaching methodology has given positive satisfaction in studying even if there is no concrete evidence about differences in grading.

Yasmin Saban (2013), a researcher at the University of Educational Technology, University of Hawaii at Manoa Honolulu, United States, conducted a study implementing the flipped classroom instructional model using Google Sites created for middle school teachers. The results indicated that participants found that the contents were simple to follow. Moreover, they enjoyed using examples from various subjects. More than half of the participants said they would implement the flipped classroom in their own class.

A study by Love, Hodge, Grandgenett and Swift (2014) compared the efficiency of the flipped classroom and the traditional learning approach in a linear algebra course including 27 students in a flipped classroom and 28 students in a traditional classroom.

Students in the flipped classroom showed increased performance, whereas there was no change in performance with students in the traditional classroom. Moreover, the researchers found that students had a more positive attitude, and found the flipped classroom entertaining, which improved their motivation.

In addition, Davey (2015) has studied how the flipped classroom encourages student motivation to participate in online learning activities. Davey used the flipped classroom technique with 111 first year undergraduate nursing students. Materials used in this research were online lessons, independent learning, group discussion, and debate and active learning exercises. More than 85% of the participants stated that they were motivated to engage with online activities and had explored the lesson in depth. One important finding was that students who have diagnosed special learning needs such as dyslexia engaged well with online learning. Almost all the participants agreed that doing online learning activities encourage them to learn more details, especially when they do activities in groups.

One classroom study that supports the flipped classroom as beneficial is from Butt (2014). He conducted his research with students in a final-year actuarial course at Australian National University. All participants were observed from the beginning until the end of the semester in order to gather their views on lecturers in normal and flipped classrooms. At the end of the in-class research, Butt found that more than 75% of the students had positive views towards the flipped classroom approach. They responded that the flipped classroom was more beneficial for their studies compared to normal lectures and teaching styles.

A group of researchers from Sultan Hassanabolkiah Institute of Education, Universiti Brunei Darussalam, implemented the flipped classroom model in a history course consisting of twelve students from the two classes of Year 9 in a secondary school to measure the effectiveness of the flipped classroom. Their results revealed that using the flipped classroom in teaching history was effective, as shown by the test results of the students. Moreover, students believed that a flipped classroom could help them to improve their communication and writing skills (Abdul Latif, Matzin, Jawawi, Mahadi, Jaidin, Mundia, and Shahrill, 2017).

Raine, Gretton and Tas (2018) implemented the flipped classroom approach in various classes, namely natural sciences, mathematics, physics, and engineering. Each class had a duration of between 60 and 90 minutes. 20 to 120 students, depending on the subject, participated in this study. At the end of semester, attendance of students

was almost 100%. Materials used in the in-class activities included video, group discussion, and individual preparation for in-class learning. In each session, lecturers gave the correct answers and feedbacks to students in PowerPoint together with some discussions and note-taking. The result of the research confirmed that the flipped classroom was a genuine revolution in teaching methodology, especially when matched with modern technology. It also suggested alternative ways of teaching with more technology in the future. The research finding showed the effectiveness of short videos, and that students preferred listening to a clear voice together with illustrations rather than just watching or listening to videos of the lecturer. It also showed that the flipped classroom teaching method improved students' participation in observation and other activities. However, the research suggested the importance of clarifying the objectives and values of the in-class activities in order to ensure that students be prepared for the class activities and understand the reasons for them.

Zuo Zin Yue (2016) conducted a mixed-methods study investigating the use of flipped classrooms in motivating students for English class in order to help students develop their communicative language skills. The results revealed that the flipped classroom approach stimulated students to spend more time and effort participating in class activities. The researcher recommended rotating class activities, adding teacher-led instruction, and informal assessment as ways of improving teaching and learning outcomes.

As can be seen from this research, the flipped classroom is an effective learning method for enhancing student motivation for learning, and for improving student outcomes. The use of technology-assisted learning methods, particularly video content in flipped classrooms, allows students to re-watch and attempt to understand the topics that they find difficult. In the Innovative Business Department in the International College at CMRU, we find that students have some difficulty in learning business subjects through the English language, and we believe that applying the flipped classroom would be an effective solution for this problem in the International College, CMRU.

## Motivation in Learning

### *Definition of Motivation*

Huitt (2001) defined motivation as a condition or an internal status which sometimes refers to the needs or desires that leads people to actively accomplish a goal.

Pintrich and Schunk (2002) stated that motivation referred to “the process whereby goal-directed activity is instigated and sustained.”

Keller (2009) described motivation as a term that broadly refers to what humans desire, choose to perform, and commit to do.

Bugge and Wikan (2013) defined motivation as the influence on developing students’ learning outcomes.

Schunk, Meece, and Pintrich (2014) stated that motivation is the process whereby goal-directed practices are prioritized and sustained.

Therefore, motivation in learning means the condition that students desire to do something to achieve their learning goal, and it is considered the ability to direct behavior towards some goal. In this study, motivation in learning will be emphasized.

Early studies of motivation involved the investigation of individual needs which demonstrated goal-driven behavior in order to fulfil individual needs. The well-known needs theories involve Maslow’s Hierarchy of Needs, Alderfer’s ERG Model, and McClelland’s Achievement Motivation Theory. These theories revolve around the fulfillment of an internal requirement which leads to certain beneficial outcomes (Ball, 2012).

Regarding motivation in educational studies, some well-known theories or models that were investigated by researchers (Gopalan, Bakar, Zulkifli, Alwi, and Mat, 2017) included the Self-Determination Theory (SDT) by Deci and Ryan (1985), and the ARCS model of motivation by Keller (2008).

According to Self-Determination Theory (SDT), types of motivation have been classified based on the reasons or goals that drive a person to an action, and include *intrinsic motivation* and *extrinsic motivation*. Intrinsic motivation refers to an action that a person does from the inherent enjoyment or interest in the learning process, whereas extrinsic motivation refers to an action that leads to a separate outcome (Ryan and Deci,

2000). Deci, Vallerand, Pelletier, and Ryan (1991) suggested that self-determination leads to desired educational outcomes that assist both the individual and society.

The ARCS Model, developed by the education psychologist John Keller (Keller, 1987; Keller, 2000; Keller, 2008; Keller, 2010), is the model that had a significant impact towards the field of computer-based instruction (McMahon, 2014). ARCS stands for Attention, Relevance, Confidence and Satisfaction, which are considered to be the four elements that students require to be engaged in learning (Keller, 2000; Keller, 2008):

#### *Attention*

*Attention* is the initial importance factor that draws learners' attention to engage in higher levels of curiosity, particularly at the beginning of the class. Moreover, it is vital to sustain learners' attention throughout the lesson.

#### *Relevance*

*Relevance* refers to the connection of the instructional content or the teaching strategies to the learners. These connections could involve the learners' learning goals, past experiences, and learning styles. The link between the content to learners' goals, experiences or interests, and learning styles could be promoted during learning time.

#### *Confidence*

*Confidence* is the third condition which helps students build positive successful expectations. This can be accomplished by giving students clear objectives and relevant examples. Some students have low confidence since they have little comprehension of what teachers expect from them.

#### *Satisfaction*

*Satisfaction* is required as the factor to sustain motivation in learning. The first three principles are necessary to build students' motivation to learn, while the fourth factor, satisfaction, is essential for learners to have positive feelings about their learning experiences, which sustain their motivation in learning.

Motivation in learning has been a significant topic in conducting educational research since learners' motivation is seen as an important factor in academic achievement. However, there is no universal consensus about the best way to facilitate academic achievement, so teaching and learning methods that sustain the motivation of

learners continue to be topics for experimental research. Therefore, it is important to review more about motivation in learning content.

### *Related Research*

Davey (2015) explored the application of the flipped classroom with 128 active students in an undergraduate Nursing program using self-report questionnaires to stimulate students' motivation in engaging with e-learning activities. Also, the outcomes concluded that the flipped classroom motivated students to study independently.

Ghbari (2016) examined the effect of the ARCS model on Achievement Motivation (AM) and Academic Achievement (AA) with 113 students in tenth grade. The students were divided into two group using two distinct approaches, the traditional instructional method and the ARCS model. Ghbari's findings revealed that due to the application of the ARCS motivation model, there were significant differences in the motivation achievement test and the achievement test.

Aşıksoy and Özdamli (2016) studied the use of the flipped classroom adapted to Keller's ARCS motivation model in a physics course in order to determine the effect on learning achievement, motivation and self-sufficiency in students. The participants included 66 students from two classes. One class used the traditional learning approach, while the flipped classroom was applied to the other class. The researchers' findings showed that the group of the students in the flipped classroom had higher levels of achievement than the students in the traditional class. The students' motivation and self-sufficiency both increased. Moreover, students gave positive comments regarding flipped classroom methods in semi-structured interviews after the end of the semester.

Reynolds, Roberts, and Hauck (2017) explored the integration of the ARCS Model of Motivational Design and teaching information literacy sessions in the instruction of librarians. The results showed that ARCS was valuable for developing student engagement during information literacy teaching.

Karampa and Paraskeva (2018) designed a flipped classroom with primary school students using a blended learning environment to provide opportunities for motivation in learning with STEAM (Science, Technology, Engineering, Arts, Mathematics) fields. They applied the ARCS motivation model and the instructional design of integrated on-line distance learning to create a blended learning environment. Their findings indicated that the blended environment using a flipped classroom and the application of the ARCS



motivation model was able to empower motivation and enhance students' collaborative and computational thinking skills.

These studies of motivation in learning show that the ARCS motivational model is highly compatible with the flipped classroom. The flipped classroom approach seems to be an effective learning and teaching method which can enhance students' motivation for learning as well as student outcomes, particularly in a business learning context in the International College, CMRU.

