
A Review of the Flipped Classroom Model

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Abstract

The flipped classroom model is a student-centered learning method, which is formed to improve the efficiency of class (Hung, 2017). In recent years, this learning mode has gained a great popularity in many countries (Fezile & Gulsum, 2016). McNally et al.(2017) Claims some theories can be used as the evidences to support the theoretical base of the flipped classroom model. The key element of student-centered learning model theories is active learning. Active learning mainly refers to students activities and engagement (Loeb, 2015). In addition, Bergmann and Sams (2012) suggest that the idea of presenting the flipped classroom model is very innovative. The flipped classroom model places emphasize on qualification, socialization and subjectification. And there are two key elements for the flipped classroom mode to operate effectively: (i) students are appearing in class as well as engaging actively, and (ii) students are supposed to have prepared the learning materials (Mok, 2014).

1. What it the flipped classroom model?

Students' performance has a deep relationship with the degree of their engagement in class. Participation directly leads to learning outcome (Alaba Olaloluwakotansibe, 2014). In recent years many scholars and researchers put the focus on how to engage students in class effectively. There are various innovative teaching methods. One particularly popular is the flipped classroom model. The flipped classroom model changes the traditional lecture-centered learning mode, providing more opportunities to students to participate and interact in classroom (Lai & Hwang, 2016). The flipped classroom model is a student-centered learning method, which is formed to improve the efficiency of class. Many educators have claimed there are many advantages for flipping the classroom, such as enhancing student engagement, improving

students' performance, and strengthening course designs (Hung, 2017). In recent years, this learning mode has gained a great popularity in many countries (Fezile & Gulsum, 2016).

Lectures are usually passive. Students are forced to listen over 30 minutes so that little time is left to do interaction. Therefore, the flipped classroom model is motivated to appear (Fleck, Richmond, & Hussey, 2014). Flipped learning usually accomplishes by relying on blended learning. Blended learning combines "online learning" and "on-campus face to face learning". But the flipped classroom learning is not only about blended learning (Reidsema, Kavanagh, Hadgraft, & Smith, 2017). It is also about the practice of knowledge construction. (Butzler, 2015) Basically the flipped classroom is a kind of learning context where the process of getting knowledge is happening outside of classroom, but the process of constructing knowledge and solving problems is happening in the classroom (Butzler, 2015). The teaching resource needs to be transferred to students before class. So Internet is a necessary medium to delivery knowledge. The learners are given full autonomous rights to decide on when and where to finish the knowledge acquisition (Butzler, 2015). That means videos and other resources should be available before class. When students are having class, they have already been familiar with the lecture contents (Keengwe, Onchwari, & Oigara, 2014). Specifically, the flipped classroom model approach prescribes class-time is used for solving problems and sharing their opinions (Tawfik & Lilly, 2015) In class, students get peer-support and guidance from instructors. (Butzler, 2015). Generally, the flipped classroom approach usually consists of many elements such as students are seen as active in their learning. And technology facilitates the self-directed learning process and so on (Becker, 2013).

2. What is the rationale and theory of the flipped classroom model?

McNally et al. (2017) Claims some theories can be used as the evidences to support the theoretical base of the flipped classroom model. The key element of student-centered learning model theories is active learning. Active learning mainly refers to students activities and engagement (Loeb, 2015). Active learning requires teachers to get involved in a development program and place emphasize on making their courses student-centered, active learning activities and other kind of methods are all encouraged to be used. (Maybee, Doan, & Flierl, 2016).

The flipped classroom learning model completely accords with the essence of active learning. According to the observation of Mok (2014), students have active engagement in class with using the flipped classroom approach. Students work together to solve the problems with energy. When they are meeting some difficulties they cannot figure out even relying on peer-support, they turn to the teacher for help.

Compared with past, Students are more willing to give hands to others and ask others for help. It is obvious students become energetic and initiative than before. Previously, the knowledge student obtain is very limited, but now that is much broader, because when students are learning by themselves, they meet some confusing questions, then they start their own thinking and start to solve these problems. Alaba Olaoluwakotansibe (2014) also claims that there is an improvement compared to previous batches. Students are more inclined to be immersed in their learning because the availability of the video lectures attract them to do so. In the past, some struggling students can not follow teachers and even cannot finish the class exercise, and the only way for them is reviewing the lecture slides and text books after class. This time round, the weaker but diligent students can use all the before-class materials to understand the content. Some students think they are more confident in class because they have understood the content before going to class. Through the students' opinions it is clear they get many benefits from the flipped classroom method. In comparison with traditional class model, the flipped classroom module improves student learning and critical thinking. The flipped classroom model helps to get students engaged in class and all activities (E. C. Smith, 2017).

3. Why is the flipped classroom model innovative?

Bergmann and Sams (2012) suggest that the idea of presenting the flipped classroom model is very innovative. Because many students take so much time on their digital devices. Even when they are doing their homework, they are texting their friends or using iPods to listen to music at the same time. Since they strongly rely on digital devices, it is a good idea to transfer knowledge by those digital devices. What is more, current youth are always busy. They are occupied with kinds of events. So the flipped classroom method as a flexible learning way can reduce their heavy burn and give them opportunities to know how to manage time effectively. The innovation of flipping classroom also performs as helping the struggling students. In the traditional class, teachers usually pay more attention to the active students, but with this new model, teachers pay

majority of the attention to the students who really need help (Bergmann & Sams, 2012).

One important characteristic of the flipped classroom method is providing a flexible learning context. This is the most essential condition for this model. Under this situation, students have enough autonomy to arrange their time and location to finish their before-class learning process (Hung, 2017). Then they have the chances to obtain the further information about the class and even to do some related research and so on.

The second consideration of this approach is about the roles of teachers and students. The flipped classroom mode doesn't mean teachers only need to prepare some before-class materials. Teachers still need to fully prepare the class such as the organization of the activities and some answers to the questions which students might be asking in class. Teachers are usually expected to prepare some guiding questions, which could help students have a more comprehensive understanding and improve their critical thinking, thus making good outcomes (Thai, De Wever, & Valcke, 2017). However, teachers should control the boundary of the responsibility. Teachers are not supposed to be the lecturer all the time, due to students are expected to performance more (Hung, 2017).

The third one is about the tools used to transfer knowledge before class. Video and e-learning are very common tools. Apart from the mentioned ones, there are many other innovative delivery methods such as blog. Implementing a connection between the online and real classroom is very important. The two steps should not be isolated. Teachers should prepare some active assessments across the two processes (Santos Green, Banas, & Perkins, 2017). The most beneficial thing for using blog is that students can have the discussion on their blogs. They can share their understandings and opinions by posting articles in their own blogs and they can also comment in other peers blogs. The grade can be based on their performance on blogs, such as the quality and quantity of the articles and comments (Haile, 2015). According to the experiment by Haile (2015), using blog has improved students' writing. Teachers can choose other forms of the delivery tool on the basis of the specific context.

4. How is the flipped classroom model connected to the contemporary education ?

Biesta (2015) argues education distinguishes from other activities because of its function responding to three domains, which are qualification, socialization and subjectification. Qualification means the knowledge or ability that students get to use in really society (Biesta, 2015). Unlike the previous teaching model that focuses on the content lecturer give to students,

the flipped classroom model places emphasize on how much content learned by students and what problems solved by students themselves. In other words, the educators put the ability to learn in an more important place than the actual knowledge. Socialization is to some extent a much specific destination of education. Students are supposed to be used to different traditions (Biesta, 2015). In this situation, students should find the joy of studying. J. T. Smith (2016) argues that now the aim of schooling and education is not same as that of past. Many heartening teachers regard enjoyment of learning as the destination of education. So the key of education lies in fostering a joy of learning. Unlike the traditional lecture-centered approach, which paid more attention to how much knowledge students could receive, the flipped classroom approach cares students' participation engagement and joy in class (Hung, 2017). Students can gain much joy from preparing the class materials and taking important roles in class. With joy, students are likely easily to understand the traditions. Additionally, the subjectification refers to students as individuals to take responsibility and to be initiative (Biesta, 2015). The flipped classroom method equips students with the ability to solve problem, help others to solve problem and to be collaborative. It is not like the traditional teaching method only focusing on the knowledge that students get (Biesta, 2015). It provides students with many opportunities to apply and practice in the real complex society so that the three dimensions can get improved. (Biesta, 2015)

5. What should be noticed when the flipped classroom model is operated?

Two key elements for the flipped classroom mode to operate effectively: (i) students are appearing in class as well as engaging actively, and (ii) students are supposed to have prepared the learning materials (Mok, 2014). Nematollahi, St John, and Adamas-Rappaport (2015) suggest that when operating the flipped classroom approach, there are still something need to pay attention to, for example, the quantity of the before-class learning materials. As his students response, they prefer 20-minute videos rather than those over 30 minutes. Teachers are supposed to know students' feedback about the learning materials. Moreover, according to Nematollahi et al. (2015) experience, when teachers ask open-ended questions, they often receive few same answers. So teachers change questions into board-like questions to courage more participation. During the process of this mode, there are dynamic problems appearing in different contexts. Measures should be taken on the basis of specific environment. It is said that the decrease in student satisfaction and motivation in flipped classroom model of instruction is a exiting problem (Yilmaz, 2017). Study researched by Yilmaz (2017) indicates that e-learning readiness is

closely related to efficiency of this model. Therefore, improving readiness levels of those with low levels of readiness is essential. Giving instructions to students how to use reading skills to improve the efficiency.

6. How is the flipped classroom model relevant to my context?

The context where I work is a middle school in the capital city of Sichuan province in china. The school is a foreign language school, so it is very international. The school credo is pursuing individual's energy. So the leaders of school pay too much attention on every individual's performance and engagement on everything. The school always adapts itself to the changing educational environment. So many western education innovative teaching methods are practiced in my context, including the flipped classroom model, which is imported in our school. Group-teaching model is also a stable model in the context. That means students need to be divided into groups, and they are accessed as a whole group. In my class there are about 24 students divided as 6 groups. Every group has a weekly group leader in shifts to be charge of the affairs of the group. The group leader is more like a coordinator to try to engage all the members can get involved in class or some other organized activities. Actually the system of weekly group leader is a kind of innovation in education. Leaders are expected to consider how to arrange members, how to use strategies to compete with other groups. And everyone has this kind of opportunity to use the autonomy. Before class teachers give out the learning materials usually including one piece of question sheet. When students finish previewing and self-learning, they are required to finish the question sheet. then students need share their opinions about the questions in class. Every group's participation is recorded and summarized every week. After experiencing the flipped classroom model, students not only get more involved in class but also in after-class activities. They obtain many useful skills to organize activities and how to coordinate in class. It is obvious this process satisfies what the aim of the flipped classroom model.

Reference :

Alaba Olaoluwakotansibe, A. (2014). Developing Learners's; Second Language Communicative Competence through Active Learning: Clickers or Communicative

Approach? *Journal of Educational Technology & Society*, 17(2), 257-269.

Becker, B. (2013). Start Flipping Out With Guide on the Side. *Behavioral & Social Sciences Librarian*, 32(4), 257-260. doi:10.1080/01639269.2013.838879

Bergmann, J., & Sams, A. (2012). *Flip your classroom reach every student in every class every day* / Jonathan Bergmann, Aaron Sams (1st ed.. ed.). Eugene, Or. : Alexandria, Va. : Eugene, Or. : International Society for Technology in Education ; Alexandria, Va. : Ascd.

Biesta, G. (2015). What is Education For? On Good Education, Teacher Judgement, and Educational Professionalism. *European Journal of Education*, 50(1), 75-87. doi:10.1111/ejed.12109

Butzler, K. B. (2015). ConfChem Conference on Flipped Classroom: Flipping at an Open-Enrollment College. *Journal of Chemical Education*, 92(9), 1574-1576. doi:10.1021/ed500875n

Fezile, O., & Gulsum, A. (2016). Flipped Classroom Approach. *World Journal on Educational Technology*, 8(2), 98-105. doi:10.18844/wjet.v8i2.640

Fleck, B., Richmond, A., & Hussey, H. (2014). *Promoting Active Learning through a Flipped Course Design*.

Haile, J. D. (2015). ConfChem Conference on Flipped Classroom: Using a Blog to Flip a Classroom. *Journal of Chemical Education*, 92(9), 1572-1573. doi:10.1021/ed500917j

Hung, H.-T. (2017). Design-Based Research: Redesign of an English Language Course Using a Flipped Classroom Approach. *TESOL Quarterly*, 51(1), 180-192. doi:10.1002/tesq.328

Keengwe, J., Onchwari, G., & Oigara, J. N. (2014). *Promoting active learning through the flipped classroom model* Jared Keengwe, Grace Onchwari, James N. Oigara, [editors]. Hershey, PA: Hershey, PA : Information Science Reference.

- Lai, C.-L., & Hwang, G.-J. (2016). A self-regulated flipped classroom approach to improving students' learning performance in a mathematics course. *Computers & Education, 100*, 126-140. doi:10.1016/j.compedu.2016.05.006
- Loeb, S. (2015). Active Learning: An Advantageous Yet Challenging Approach to Accounting Ethics Instruction. *Journal of Business Ethics, 127*(1), 221-230. doi:10.1007/s10551-013-2027-1
- Maybee, C., Doan, T., & Flierl, M. (2016). Information Literacy in the Active Learning Classroom. *The Journal of Academic Librarianship, 42*(6), 705-711. doi:10.1016/j.acalib.2016.07.005
- McNally, B., Chipperfield, J., Dorsett, P., Del Fabbro, L., Frommolt, V., Goetz, S., . . . Rung, A. (2017). Flipped Classroom Experiences: Student Preferences and Flip Strategy in a Higher Education Context. *Higher Education: The International Journal of Higher Education Research, 73*(2), 281-298. doi:10.1007/s10734-016-0014-z
- Mok, H. (2014). Teaching Tip: The Flipped Classroom. *Journal of Information Systems Education, 25*(1), 7-11.
- Nematollahi, S., St John, P. A., & Adamas-Rappaport, W. J. (2015). Lessons learned with a flipped classroom. *Medical Education, 49*(11), 1143-1143. doi:10.1111/medu.12845
- Reidsema, C., Kavanagh, L., Hadgraft, R., & Smith, N. (2017). *The Flipped Classroom Practice and Practices in Higher Education / edited by Carl Reidsema, Lydia Kavanagh, Roger Hadgraft, Neville Smith*. Singapore: Singapore : Springer Singapore : Imprint: Springer.
- Santos Green, L., Banas, J. R., & Perkins, R. A. (2017). *The Flipped College Classroom Conceptualized and Re-Conceptualized / edited by Lucy Santos Green, Jennifer R. Banas, Ross A. Perkins*. Cham: Cham : Springer International Publishing : Imprint: Springer.

- Smith, E. C. (2017). The flipped classroom: Benefits of student-led learning. *Nursing*, 47(4), 20-22. doi:10.1097/01.NURSE.0000513620.19174.90
- Smith, J. T. (2016). *Key questions in education : historical and contemporary perspectives / John T. Smith*. London, UK ; New York, NY: London, UK ; New York, NY : Bloomsbury Academic, an imprint of Bloomsbury Publishing Plc.
- Tawfik, A. A., & Lilly, C. (2015). Using a Flipped Classroom Approach to Support Problem-Based Learning. *Technology, Knowledge and Learning*, 20(3), 299-315. doi:10.1007/s10758-015-9262-8
- Thai, N. T. T., De Wever, B., & Valcke, M. (2017). The impact of a flipped classroom design on learning performance in higher education: Looking for the best "blend" of lectures and guiding questions with feedback. *Computers & Education*, 107, 113-126. doi:10.1016/j.compedu.2017.01.003
- Yilmaz, R. (2017). Exploring the role of e-learning readiness on student satisfaction and motivation in flipped classroom. *Computers in Human Behavior*, 70, 251-260. doi:10.1016/j.chb.2016.12.085