



Using Flipped Classroom Model to Develop English Competency and Independent Attributes of Mathayom Suksa 1 Students at Mengrai Maharajwittthayakhom School

Orapan Denprapat¹

Maneerat Chuaychoowong²

¹Master of Arts Program in English for Professional Development,
Mae Fah Luang University

²Ph.D. Thesis advisor

บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อศึกษาการพัฒนาทักษะด้านการฟังและการพูดภาษาอังกฤษ และทักษะการเรียนรู้ด้วยตนเองของนักเรียนชั้นมัธยมศึกษาปีที่ 1 โดยการสอนแบบห้องเรียนกลับด้าน (Flipped Classroom Model) กลุ่มตัวอย่างที่ใช้ในการวิจัย คือ นักเรียนชั้นมัธยมศึกษาปีที่ 1 ที่เรียนรายวิชาสนทนาภาษาอังกฤษ 2 ในภาคเรียนที่ 2 ปีการศึกษา 2557 โรงเรียนเม็งรายมหาราชวิทยาคม อำเภอเมืองเชียงราย จังหวัดเชียงราย จำนวน 67 คน ซึ่งได้มาโดยการเลือกแบบเจาะจง (Purposive Sampling) เครื่องมือที่ใช้ในการเก็บรวบรวมข้อมูลมี 2 ชนิด ได้แก่ แบบทดสอบก่อนเรียนและหลังเรียน และการสัมภาษณ์กลุ่มแบบกึ่งโครงสร้าง (Semi-Structured Group Interview) แบบทดสอบก่อนเรียนและหลังเรียนใช้ในการเก็บข้อมูลเกี่ยวกับผลสัมฤทธิ์ทางการเรียน และการสัมภาษณ์กลุ่มแบบกึ่งโครงสร้างใช้ในการเก็บข้อมูลเกี่ยวกับทักษะการเรียนรู้ด้วยตนเอง สถิติที่ใช้ในการวิเคราะห์ข้อมูล ได้แก่ ค่าเฉลี่ย ค่าความเบี่ยงเบนมาตรฐาน และ t-test

ผลการวิจัย พบว่า นักเรียนที่เรียนด้วยการสอนแบบห้องเรียนกลับด้านมีความสามารถด้านทักษะการฟังและการพูดภาษาอังกฤษสูงกว่านักเรียนที่เรียนด้วยการสอนแบบดั้งเดิม (Traditional Teaching Method) อย่างมีนัยสำคัญทางสถิติที่ระดับ .05 และนักเรียนที่เรียนด้วยการสอนแบบห้องเรียนกลับด้านสามารถพัฒนาทักษะการเรียนรู้ด้วยตนเองใน



4 ด้านได้แก่ 1) รักการเรียนรู้ 2) วางแผน จัดการ และรับผิดชอบต่อการเรียนรู้ 3) ค้นหาและเข้าร่วมกิจกรรมต่างๆ หลากหลายแหล่งเรียนรู้ และ 4) ติดตามการเรียนรู้ของตนเอง

คำสำคัญ : ห้องเรียนกลับด้าน ผู้เรียนที่เรียนรู้อย่างอิสระ คุณลักษณะของผู้เรียนที่เรียนรู้อย่างอิสระ

Abstract

The objectives of this experimental research study were to enhance English competency in listening and speaking and to develop independent learners' attributes of Mathayom Suksa 1 students by using the flipped classroom model. There were two main research questions: 1) To what extent does the flipped classroom model enhance students' English listening and speaking skills?; 2) In what ways does the flipped classroom model promote independent learners' attributes?. The participants were 67 Mathayom Suksa 1 students who took English Conversation 2 Course in the 2nd semester of academic year 2014 at Mengrai Maharajwitthayakhom School in Chiang Rai, Thailand. Purposive sampling technique was used to select the participants. The main research instruments were pre-test and post-test and semi-structured group interview. Pre-test and post-test were used to collect the data about students' English listening and speaking scores, whereas semi-structured group interview was used to collect the data about students' independent attributes. The data was analyzed by mean, standard deviation, and t-test. The results indicated that there was significant difference between the mean scores of post-test ($t(65) = 3.126, p < 0.05$) among the students who took part in the control group ($M = 28.91, SD = 6.887$) and experimental group ($M = 33.59, SD = 5.149$). Moreover, the flipped classroom model developed learners' independent attributes which consisted of loving to learn; planning, managing, and taking responsibility for learning; finding and engaging in various activities and resources; and reflecting on learning.



Keywords : Flipped Classroom, Independent Learners, Independent Learners' Attributes

Introduction

In the past, teaching and learning was teacher-centered, meaning teachers gave knowledge to students. This method of teaching promotes passive learning. Hence, students became passive learners so they sat and waited for the transfer of knowledge. The Thai government has tried to solve this problem by adopting educational reform derived from the west and expanded throughout the world. Thailand has also tried to reform the education system to promote self-directed learning to develop people to be self-directed learners as can be seen in the reformation of the national educational system in the year 1999 under the National Education Act B.E. 2542 (1999). The government emphasizes lifelong learning and implements self-directed learning into educational systems beginning from primary school through higher educational institutions as shown in the government's policy. Suchinda Muongmee (2007 : 33) stated that "in the complex context of fast globalization and huge transformation in the new century, self-directed learning and lifelong learning are the goals of the 1999 National Education Act in Thailand". Moreover, the Policy Statement of the Council of Ministers B.E. 2551 (2008) focused on educational policy for lifelong learning. Thai people are expected to pay more attention to learning throughout their lives as independent learners. This concept is known as 'lifelong learning'.

Thai students have to form new study habits to become independent learners beginning when they are young in order to prepare themselves for lifelong learning. Becoming independent learner is very important for now and the future because it plays an important role in students' success in both their academic and career life. Students should develop skills to become independent learners who can adapt to change, manage projects,



take responsibility for their work, lead others and produce results. They will have positive learning characters and have developed habits of mind that support their independence and engagement in learning. Hence, they can apply these attributes in their study, work, and daily life.

The government has presented the flipped classroom model to solve the above problem and support lifelong learning, especially independent learning. The former Education Minister Chaturon Chaisaeng talked about education reform that the reform must necessarily begin in the classroom. He also introduced the "flipped classroom" concept for Thai students (Suthichai Yoon, <http://www.nationmultimedia.com/opinion/Education-reform-has-to-start-in-the-flipped-class-30222422.html>, 2014). From studying the previous research studies about the flipped classroom, most researchers studied with undergraduate students and graduate students. There are some studies that were conducted in secondary schools. Furthermore, most of the research studies were conducted in foreign countries. There are some that were conducted in Thai students' classroom. There are many results of previous research studies supported that the flipped classroom can provide students the opportunity to set their own learning objectives, choose the activities, and control their own learning. The students had a chance to learn in various ways and activities which encourage them to become active learners. They also engaged and enjoyed the activities, especially collaborative activities, because they can share their knowledge and help each other while doing the activities. The students were satisfied with the flipped learning environment. Additionally, an important result of the previous research studies was the higher achievement of the students after they were taught by using the flipped classroom. From these research results, we can see that the flipped classroom provides many beneficial results to students.

The flipped classroom is a teaching strategy that delivers the lecture



through technology in order to encourage students' self-study outside the classroom and do learning activities such as homework and exercises inside the classroom (Bergmann & Sams, 2012 : Introduction). The key studies of the flipped classroom technique consist of two parts: out of class and in-class activities. Course contents and lectures are provided outside the classroom via technology such as online recorded lectures, video files, and audio files. Students have to study the contents and lectures individually, whereas they have to take part in interactive group learning activities inside classroom. During class time, they have an opportunity to practice skills and knowledge, do higher order learning activities, clarify and apply new knowledge. Additionally, it can promote the interaction between teacher and students.

This research was conducted with Mathayom Suksa 1 students from a medium-sized provincial public secondary school. The researcher implemented the concept of lifelong learning focusing on independent learning into an English Conversation 2 Course. The objective of this course is to practice listening and speaking skills so as to be able to communicate in daily situations effectively in order to promote students to be independent learners. The researcher aimed to examine to what extent students' English listening and speaking skills and independent learners' attributes could be developed by the use of the flipped classroom model.

Objectives

The main objectives of the present study are as follows:

1. To investigate the effectiveness of using the flipped classroom model to enhance English listening and speaking skills of Mathayom Suksa 1 students.
2. To examine the effectiveness of using the flipped classroom model to develop independent learners' attributes of Mathayom Suksa 1 students.

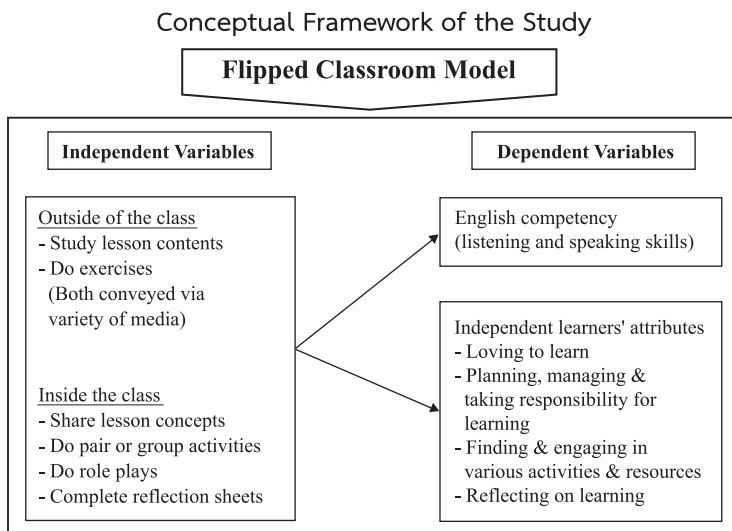


Figure 1 Conceptual Framework

Research Methodology

This was a mixed method research that used both quantitative and qualitative approaches to collect data. It was also an experimental study. The participants were divided into two groups which were control and experimental groups. The data from both groups were collected and compared for the improvement of students' English listening and speaking skills and the development of independent learners' attributes.

The population of this study was 210 Mathayom Suksa 1 students. The samples were 67 Mathayom Suksa 1 students who took English Conversation 2 Course in the 2nd semester of the 2014 academic year at Mengrai Maharajwittayakhom School, a medium-sized public secondary school in Chiang Rai, Thailand. The samples were 39 males and 28 females. The ages of the students in the control and experimental group ranged from 12 to 13. They have studied English for six years on average. Purposive sampling technique was used to get the participants from the population who were



Mathayom Suksa 1 students at Mengrai Maharajwiththayakhom School. The criteria of selecting the participants were the similar distribution of their grades from English Conversation 1 Course and grade point average of the first semester of the 2014 academic year. The control and experimental groups were from the classes that had the close criteria, so they were selected to be the participants of this research study.

This study employed the instructional and data collection tools. The details of each instrument were described as follows.

1. Instructional Tool

Lesson Plans There were 12 lesson plans. For the control group, six traditional learning strategies lesson plans were taught. For the experimental group, six lesson plans were based on the flipped classroom model. There were six topics for 12 lesson plans which were telling time, daily routines, my family, lost person, eating out, and where is it?. The flipped classroom format is shown in Figure 2 below.

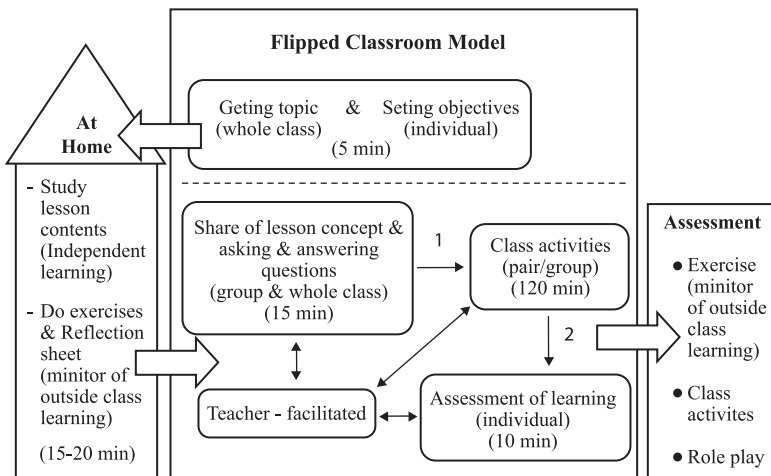


Figure 2 Flipped Classroom Format for English Conversation 2 Course
(Adapted version of McLaughlin, Roth, Glatt, et al. (2014 : 236-243))



2. Data Collection Tools

2.1 Pre-Test and Post-Test

Pre-test and post-test were used to collect students' English listening and speaking scores before and after using traditional instruction and flipped classroom model. Pre-test and post-test consisted of two parts: listening and speaking. The first part was listening part that was used to evaluate students' listening skill. There were 20 multiple choice items. The other part was speaking part that was used to evaluate students' speaking skill. It was a picture description. The speaking assessment criteria were used to evaluate picture description.

2.2 Semi-Structured Group Interview

Semi-structured group interview was used to collect the data about the encouragement of independent learners' attributes in the flipped classroom model. In the present study, nine students in the experimental group were selected to be interview participants by using purposive sampling technique because they were the representative of the students who had high, moderate, and low English listening and speaking scores. The interview was conducted twice.

The data was collected from the two instruments: pre-test and post-test, and semi-structured group interview.

1. Pre-Test and Post-Test

The results of the improvement of English listening and speaking skills were compared by using data from the control group and experimental group in which the data was collected by using pre-test and post-test. Pre-test was used at the first period of the course. Then, the control group studied by receiving the traditional instruction, whereas the experimental group studied by receiving the flipped model of instruction. After that, post-test was used at the last period of the course.



2. Semi-Structured Group Interview

The results of the development of independent learners' attributes were collected from the experimental group by using semi-structured group interview. The interview was conducted twice. Both interviews were conducted during the last week of the course. Thai language was used in both interviews because it is the mother tongue of the interviewees, so it could help them give the information clearly and accurately. After that, the interviewer translated all interview data into English.

Data Analysis: there were two main types of data obtained in this study. The quantitative data obtained from the students' scores of pre-test and post-test. The qualitative data obtained from students' answers of the interviews. The results were analyzed as follows:

1. Data from Pre-Test and Post-Test

The data from the pre-test and post-test was addressed the research question 1) in what way does flipped classroom model enhance learners' English competency? To compare the improvement of students' listening and speaking skills in flipped classroom and traditional classroom, the t-test value was calculated to analyze the pre-test and post-test of the study. The level of significance was 0.05. The mean with standard deviation was calculated by using the computer program.

2. Data from Semi-Structured Group Interview

The data from the interviews was addressed the research question 2) to what extent does flipped classroom model promotes independent learners' attributes? To examine the stimulus of independent learners' attributes in flipped classroom, the data was analyzed by using descriptive narrative.

Conclusion

The results of this research study showed as follows:

1. The post-test mean scores of the control group and experimental



group were compared by using an independent samples t-test. The findings indicated that after teaching, there was significant difference between the mean scores of post-test ($t(65) = 3.126$, $p < 0.05$) among the students who took part in the control group ($M = 28.91$, $SD = 6.887$) and experimental group ($M = 33.59$, $SD = 5.149$).

2. Flipped classroom model builds up attributes of independent learners. The students are interested in gaining knowledge because they loved to learn. When students decided to learn, they planned and managed their learning process to achieve the goal of each lesson. Moreover, they took responsibility for learning because they have adapted learning process to be appropriate for their learning styles. They studied various ways and resources both in class and out of class. They sometimes study by themselves and ask other people for help. Finally, they evaluated their own learning that they can bring weak points for development in the next lesson.

Discussion

The findings can be discussed under two aspects: 1) the flipped classroom model and English listening and speaking competency; 2) the development of independent learners' attributes: loving to learn, planning, managing and taking responsibility for learning, finding and engaging in various activities and resources, and reflecting on learning.

1. Flipped Classroom Model and English Listening and Speaking Competency

This study revealed that the flipped classroom significantly enhanced the students' listening and speaking competencies. The quantitative data from this study underscored the effectiveness of the flipped classroom model. In the case of listening skill, students were able to practice listening in many steps of teaching from various activities and teaching materials. The flipped classroom provided students the opportunity to practice their



listening both outside and inside classroom. Outside classroom, students studied some lesson contents through iPad applications that provided the lesson content video, so students could listen to the contents and watch the pictures to help them understand the contents. Kaya (2015 : 3-13) noted that students can improve their communicative skills and be more active learners if they have an opportunity to use effective technology. Inside classroom, the students had to do listening activities such as listening to the time and drawing the clocks, listening to someone's daily routine and putting the activities in order, and listening to people's appearances and matching with the pictures. Furthermore, the researcher selected contents that appropriated for students who study English as a foreign language. This is similar to the research done by Krashen (1982 : Introduction) who mentioned that the students can study second language or foreign language well, when they receive comprehensible input that the contents have to link new information to their prior knowledge.

In the view of speaking skill, the students were engaged in diverse activities such as describing family relationships and doing role-plays about ordering food and drinks. Most activities were collaborative tasks. In this way, they were engaged in interaction with each other. They were able to familiarize with the conversation model, when they did role-playing activities with their partners or groups. Moreover, they obtained the sentence structures and patterns and applied them in their actual practices.

In conclusion, the overall research results indicated that the flipped classroom model encouraged students' English listening and speaking skills more than the traditional instruction. It also supported independent attributes of the students. These findings conformed to the current education trend that promotes students to be able to communicate in English and study by themselves. In addition, students can become lifelong learners.



2. The Development of Independent Learners' Attributes

The flipped classroom developed the attributes of independent learners. This research study focused on four attributes: 1) loving to learn; 2) planning, managing and taking responsibility for learning; 3) finding and engaging in various activities and resources; 4) reflecting on learning. All of these attributes were presented in the following. Firstly, love of learning was an important behavior that students performed after receiving the flipped instruction. The qualitative data from the current study pointed to the students' love of learning because they did the English activities in their free time. Nobody forced them to do those activities. They had freedom to choose what they want to learn and to do by themselves. They were eager to participate in the activities and reviewed what they have learned in class, such as reading English conversation book. Lage, Platt and Treglia (2000 : 30-43) also found that the flipped learning authorizes students to more active learning. Furthermore, some activities were done because the students would like to obtain more knowledge, such as playing crossword games and taking an extra tutorial class. All students loved to do the activities in pairs and groups that they enjoyed with their decision.

Secondly, the students had the ability to plan, manage, and take responsibility for learning after they were taught by using flipped classroom model. The qualitative data showed that students had an opportunity to set the objectives before studying each lesson. They also had independent opportunity to choose ways in which they would interact in the class. Holec (1981 : Introduction) and Little (1991 : Introduction) defined learner autonomy as the ability of learners who are able to, plan, monitor, and evaluate their own learning effectively and freely.

Thirdly, the flipped classroom provided students to find and engage with variety of activities and resources. As noted in the results, some students searched on the internet for more information, when they did not



fully understand the lesson contents or would like to find some more examples and exercises in order to support their understanding. Similar to the findings of Bormann's (2014 : Introduction) study for the impact of a flipped classroom model on student engagement and achievement that the students have a chance to learn in various ways and activities which are different from traditional instruction. Those activities and ways of teaching encourage students to practice higher levels of Bloom's Taxonomy.

Lastly, the flipped model of instruction also helped to develop students' self-reflection which is another requirement for students to become independent learners. The qualitative data reveals that students are able to assess their work and learning strategies and then plan for the next lessons. The students were provided reflection sheet to every lesson. They had to take note about what they learned and how to learn while studying lesson contents outside classroom and doing the activities inside classroom. After that they had an opportunity to evaluate their own learning after finishing each lesson. This activity can help the students to practice self-reflection skill in order to adjust and improve their learning strategies for next lesson. This finding was parallel to those identified in Jirapa Abhakorn's (2014 : 46-55) study of producing reflective journals of Thai secondary school students on language learning experiences that self-reflection activities advantage Thai EFL students.

To sum up, the flipped classroom model has the procedures and activities which promote students' independent attributes.

Suggestion

This study would like to address some recommendations for further study as follows.

1. Every course has different aims and the ways to reach their purposes. Therefore, further research should be planned and organized



processes and activities of the flipped classroom model both inside and outside classroom to be suitable for each course.

2. The contents and activities should be appropriate for the students. They should not be too difficult because if students do not understand the contents and cannot complete the activities, they may lose students' interest. Moreover, if they are too easy, students may not be challenged as they are already known.

3. Teacher should train students to be familiar with the procedures of the flipped classroom process, and then guide them clearly because the students are new to this teaching and learning method. If they cannot follow the process, their learning might not be effective.

4. This study was conducted in English Conversation 2 Course which emphasized on listening and speaking skills. Further research should be conducted in English reading and writing skills and other subjects. It would also be beneficial to study a variety of grade levels.

References

- Bergmann, J. & Sams, A. (2012). **Flip your classroom: Reach every student in every class every day**. Eugene, OR : International Society for Technology in Education.
- Bormann, J. (2014). **Affordances of flipped learning and its effects on student engagement and achievement**. Master's thesis. University of Northern Iowa, Cedar Falls, IA.
- Holec, H. (1981). **Autonomy and foreign language learning**. Oxford: Pergamon.
- Jirapa Abhakorn (2014). Investigating the use of student portfolios to develop students' metacognition in English as a foreign language learning. **Journal of Language Teaching and Research**, 5(1), 46-55. Retrieved from <http://www.academypublication.com/issues/past/jltr/vol05/01/06.pdf>



- Kaya, H. (2015). Blending technology with Constructivism: Implications for an ELT classroom. **Teaching English with Technology**, 15(1), 3-13. Retrieved from <http://www.tewtjournal.org>
- Krashen, S. (1982). **Principles and practice in second language learning and acquisition**. Oxford: Pergamon.
- Lage, Maureen. J., Platt, Glenn. J. & Treglia, M. (2000). Inverting the classroom: A gateway to creating an inclusive learning environment. **Journal of Economic Education**, 31(1), 30-43. Retrieved from <http://www.journalofeconed.org>
- Little, D. (1991). **Learner autonomy: Definitions, issues and problems**. Dubin: Authentik.
- McLaughlin J. E., Roth, M. T., Glatt, D. M., Gharkholonarehe, N., Davidson, C.A., Griffin, L. M., Esserman, D. A. & Mumper, R. J. (2014). The flipped classroom: A course redesign to foster learning and engagement in a health professions school. **Academic Medicine**, 89(2), 236-243. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/24270916>
- Suchinda Moungmee (2007). The role of lifelong learning and self-directed learning in educational reform in Thailand. **Educational Journal of Thailand**, 1(1), 33-42. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.521.6137>
- Suthichai Yoon (2013, December 19). Education reform has to start in the 'flipped classroom'. **The Nation**. Retrieved April 20, 2014, from <http://www.nationmultimedia.com/opinion/Education-reform-has-to-start-in-the-flipped-class-30222422.html>