The Effects of Flipped Learning Implementation on The Students' Achievements in Language Teaching Media Course

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Abstract: This study aims to find out the effects of implementing Flipped Learning approach to the students' achievements in Language Teaching Media course. Flipped learning is a newly emerged teaching methodology that inverts the sequence of a traditional teaching and learning process. Flipped learning enables students to use their time in the class to engage more in group activities such as interactive discussion on the concepts that they have learned. This study employed survey method which was conducted in the English Language Education Study Program of Sanata Dharma University, Yogyakarta, Indonesia from April 2018 to December 2018. The participants of this study were 35 students who were enrolled in the Language Teaching Media course. Two research instruments were used in this study, namely questionnaires and scoring rubric. Data were gathered by distributing questionnaires and conducting assessment before and after the flipped learning approach was implemented. The results show a significant improvement in the students' achievements from the first test to the second test. A total of 31.43% increase was recorded for obtaining the A score. Students who managed to get a B also increase in numbers from 28.57% into 48.57%. Finally, the numbers of the students with C score declined significantly by 51.43%. The results of the questionnaire also found that flipped learning has improved not only the students' academic achievement, but also their ability for autonomous learning.

Keywords: flipped learning, language teaching media, students' achievements

Introduction

Flipped learning, a recently emerged teaching methodology, applies an inverted learning process which provides more time for students to use English both inside and outside the classroom (Bergmann & Sams, 2012). Flipped learning omits lectures and delivers the content of the lectures through other media such as videos, audio files, textbooks from which the students have to learn on their own and understand them before the class begins. Inside the class, the students will ask any questions they might have regarding the materials that they study outside the class. The questions that the students ask serve as the indicators of their knowledge construction and also a way to initiate participation and interaction among the students. After that, they will engage in group activities which are facilitated by the instructor (Milman, 2012). This study aims to find out the effects of the flipped learning implementation in the Language Teaching Media course, a compulsory course offered in semester four in the English Language Education Study Program, Sanata Dharma University. Since the students in this study program are trained to become future teachers, it is essential for them to experience the newly emerged teaching methodology themselves. Engaging the students through the courses that they are enrolled in is one of the most effective ways to teach them how to engage their future students (Vaughan, 2014). The formulated research question is "What are the effects of flipped learning implementation on the students' achievements in the Language Teaching Media course?".

Flipped Learning

Flipped learning is a newly emerged teaching methodology that inverts the sequence of a traditional teaching and learning process. In the classes that apply flipped learning, the learning materials which are normally studied in the class are studied outside the class. In addition, the assignments or projects that are traditionally conducted outside the class are then completed in the class (Bergmann & Sams, 2012).

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Flipped learning enables students to use their time in the class to engage more in group activities such as interactive discussion on the concepts that they have learned. Students also have more time to clarify things that they find difficult to understand. The instructors' role changes into a facilitator and an observer. Therefore, the classroom will be a place in which active learning takes place, which then promotes meaningful learning (Rajesh, 2015).

Flipped learning offers various learning choices for the students so that they can learn the materials on their own pace comfortably. Students will no longer be passive participants in learning who spend most of their time in class to sit quietly and only listen to the lectures. With the newest development of technology and also the iniquitousness of the Internet, there are more digital content sources available which can be used to enrich the students' learning experience.

Previous studies conducted on flipped learning have shown that students prefer to have a flipped classroom compared to a traditional lecture (Lage et al., 2000). Another study conducted by Millard (2012) has found that flipped learning has promoted students' engagement, classroom discussion as well as team-based skills. Enfield (2013) also found that flipped learning is very effective to help the students to learn the content of the materials and also to increase the students' self-efficacy in terms of their ability for independent learning. This is also in line with the findings in a study conducted by Lockwood (2014) that flipped learning has improved the students' autonomy to be responsible of their own learning process.

Language Teaching Media Course

Language Teaching Media is a compulsory course offered in semester four in English Language Education Study Program, Sanata Dharma University. It is designed to provide the students with theories on language teaching media and opportunity to create innovative teaching media. On completing the course, the students will be able to understand the concept, characteristics, and purposes of media for teaching, utilize conventional media for teaching, produce pictures to produce printed media, produce audio file to create media for teaching, utilize word processors software for teaching, utilize presentation software for teaching and utilize some internet facilities for teaching.

Since the students are trained to become future teachers, it is essential for them to know the theories of language teaching media. Most importantly, they should possess the skill and ability to create language teaching media which are effective and engaging for their future students. Therefore, Language Teaching Media course plays an important role in preparing the students to become innovative and creative teachers.

English Language Education Study Program

English Language Education Study Program is one of the study programs in the Faculty of Teachers' Training in Sanata Dharma University, Yogyakarta. English Language Education Study Program offers an S1 program, which is equivalent to a four-year undergraduate university degree program in many other countries. English Language Education Study Program was established in 1955 and has been a well-known and a favorite study program for its outstanding graduates who are trained to be professional English teachers across Indonesia and abroad. The mission of the English Language Education Study Program is to provide an education which integrates academic excellence with humanistic values in order to produce English teachers who are competent, knowledgeable, and dedicated in designing, managing, and developing English language programs to participate in advancing Indonesia through their work in education.

Research Method

Survey method was conducted to find out whether there was an improvement on the students' achievements after the flipped learning approach was implemented. This study was conducted in the

English Language Education Study Program of Sanata Dharma University, Yogyakarta, Indonesia from April 2018 to December 2018. The participants of this study were 35 students who were enrolled in the Language Teaching Media course. Two research instruments were used in this study. The first instrument used was questionnaire consisting of two sections: close-ended statements with Likert Scales and open-ended questions. The second instrument used was the scoring rubric to assess the students' achievements on the first and the second test. Data were gathered by distributing questionnaire and conducting assessment before and after flipped learning approach was implemented.
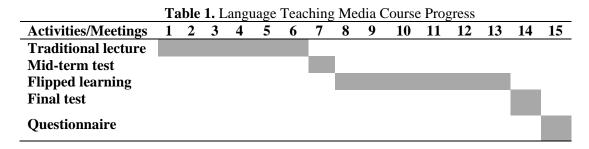
Findings and Discussion

Flipped Learning Implementation in Language Teaching Media

The researcher divided the total meetings into two categories. The first half of the semester (six meetings) were taught using the traditional lecture style. After the mid-term test at the seventh meeting was conducted, the researcher continued teaching the course using flipped learning approach for the second half of the semester (six meetings). The final test was conducted at the fourteenth meeting. The questionnaire was distributed to the students at the last meeting of the semester.

In the traditional lecture style, the researcher delivered the materials in the class using a presentation software for about 15 to 30 minutes and played selected videos that are related to the topic taught on the particular meeting. After that, the researcher continued by providing some activities such as small group or whole-class discussion and in-pairs or group-work projects that the students had to do and complete by the end of the class.

When the researcher started teaching using the flipped learning approach, videos were posted online to the Moodle as the LMS platform used by Sanata Dharma University. The course participants were asked to watch the videos before attending the class, and then to participate in the discussion and project activities during the class time. The course progress is provided in the Table 1.

Table 1. Language Teaching Media Course Progress

Activities/Meetings	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Traditional lecture															
Mid-term test															
Flipped learning															
Final test															
Questionnaire															

Flipped Learning Effect on Students' Achievements

Two tests with the same types of questions were conducted as the course progressed. The first section of the test provides 20 open-ended questions in which the students have to give short answers to the questions. The second part is a project on the topics learned. The students were given 120 minutes to complete the test. The scores from the open-ended questions and the project were then accumulated to obtain the final score of the test.

In the first test, most of the students had difficulties in completing the test on time. Based on the recorded answers on the LMS, majority of the students only answered the questions that they are certain of, and the questions that they did not know the answers remained blank. The students also tend to spend a very long time in completing the project because they often re-watch the tutorial video. Most of the students (23 people) only managed to obtain 60 to 69 points (C). There are ten students who got 70 to 79 points (B); while only two students could get an A. The first student's score is 83 and the second student's score is 85. Therefore, none of the students managed to obtain 90 points and higher in the first test.

In the second test, there were no questions that were left unanswered whether or not they know the correct answers. When completing the project, only few students played the tutorial video. Nevertheless, when these students played the video, they went straight to a certain part of the video that showed them

what to do to solve their problem that they encountered in completing the project. Thus, they did not spend too much time watching the video and they could go back to do the project shortly after. Majority of the students did not play the video at all. They already knew the steps that they needed to do and thus they focused more in maximizing what they could do to make their individual project stood out. There were thirteen students who succeeded to get an A; and three of them even got above 90 points. Most of the students (17 people) got a B with scores ranging from 75 to 78 points. In the second test, there were only five students who got a C, with the lowest score being 65 points.

In conclusion, there was a significant improvement in the students' achievements from the first test to the second test. A total of 31.43% increase was recorded for obtaining the A score. Students who managed to get a B also increase in numbers from 28.57% into 48.57%. Finally, the numbers of the students with C score declined significantly by 51.43%. The comparison of the students' scores from the first and second test can be seen in the Table 2 below.

Table 2. Students' Achievements in Language Teaching Media

Scores / Test	Test 1	Test 2
A (80 – 100)	2 (5.71%)	13 (37.14%)
B (70 – 79)	10 (28.57%)	17 (48.57%)
C (60 – 69)	23 (65.71%)	5 (14.28%)
D (50 -59)	0 (0%)	0
E (<50)	0 (0%)	0

Questionnaire on Flipped Learning Effects

In the last meeting of Language Teaching Media course, the researcher distributed a questionnaire to find out the effects of the flipped learning approach implementation experienced by the students. All participants (35 people) were present to complete and submit the questionnaire. There are two sections provided in the questionnaire. The first section provides 12 statements followed by Likert Scale ranging from 1 (strongly disagree), 2 (disagree), 3 (undecided), 4 (agree) and 5 (strongly agree) on the right side of each statement. Table 3 below presents the summary of the results from the first section of the questionnaire.

Table 3. Summarized Results on the Close-ended Section of the Questionnaire

No.	Statements	SD	D	U	A	SA
1	Flipped learning enables me to prepare better for the test.	0%	0%	8.6%	62.9%	28.6%
2	Flipped learning helps me to enrich my knowledge.	0%	0%	5.7%	57.1%	37.1%
3	Flipped learning improves my high order thinking skills (analyzing, evaluating, creating).	0%	0%	14.3%	71.4%	14.3%
4	Flipped learning allows me to clarify things that I find difficult to understand.	0%	0%	8.6%	77.1%	14.3%
5	Flipped learning provides me a better mastery on the materials.	0%	0%	8.6%	71.4%	20%
6	Flipped learning enables me to do the tasks better.	0%	0%	5.7%	42.9%	51.4%
7	Flipped learning increases my interest on the subject.	0%	0%	8.6%	48.6%	71.4%
8	Flipped learning helps me to improve my score.	0%	0%	14.3%	65.7%	14.3%

9	Flipped learning encourages me to participate more actively in the class activities.	0%	0%	5.7%	74.3%	14.3%
10	Flipped learning improves my team-based skills.	0%	0%	8.6%	68.6%	22.9%
11	I like flipped learning more than traditional lecture style.	0%	0%	5.7%	80%	14.3%
12	I would like to have another flipped learning class in the future.	0%	0%	5.7%	65.7%	28.6%

The results suggest that flipped learning has positive effects on the students' achievements in Language Teaching Media course. None of the participants choose the "Strongly Disagree" or "Disagree" options on the statements provided in the questionnaire. Furthermore, the majority of the students (94.3%) like flipped learning better than the traditional lecture style and agree to have another course which using flipped learning.

The second section provides two open-ended questions for elaborative answers. The first question is "What do you like from the flipped learning approach implementation?". The majority of the students (57.1%) stated that flipped learning enabled them to become independent learners. The online materials can be read and played as often as they want; which helps them to understand the materials on their own speed. Most of the students (48.6%) expressed that they had more opportunities to interact with the lecturer and their classmates. By using flipped learning, they had more time for discussion and doing the projects in class. Another response stating that they feel more comfortable in asking questions to the lecturer and their friends, as stated by 34.3% of the participants. In addition, the students expressed that flipped learning has increased their motivation to learn the subject (28.6%) and encouraged them to be more responsible of their own learning (14.3%).

The second question is "What do you dislike from the flipped learning approach implementation?". Most of the students (71.4%) pointed out that they often had difficulties in finding the time to watch the videos and study the online resources provided by the lecturer due to their demanding assignments from other courses. In addition, some of the students (28.9%) also mentioned that they had difficulties in using the features in the LMS as well as in operating some online software that they need to do in order to access the provided materials. The summary of the students' responses can be seen in Table 4.

Table 4. Summarized Results on the Open-ended Section of the Questionnaire

Questions	Responses	Percentage
What do you like from the flipped learning approach implementation?	Flipped learning enables me to learn at my own pace comfortably (watching the videos as often as needed)	57.1%
	Flipped learning increases my motivation in learning (learning from videos is more interesting compared to textbooks)	28.6%
	Flipped learning provides more time for discussion and practices.	48.6%
	Flipped learning encourages me to take responsibility of my own learning.	14.3%
	Flipped learning allows me to ask questions more easily to my lecturer and my friends.	34.3%
What do you dislike from the flipped learning approach implementation?	Flipped learning is time consuming (we have to watch the videos and do other preparation outside the class time).	71.4%
	Flipped learning requires good knowledge on the use of technology (use of computers, software and LMS).	28.9%

The results of the questionnaire suggest that flipped learning has good effects in improving not the students' academic achievement, but also their ability for autonomous learning. Most of the students are mostly satisfied with the implementation of flipped learning in Language Teaching Media course.

Conclusion

Based on the results of the tests and the questionnaire, it can be concluded that flipped learning has positively affect the students' achievement. Students' scores have significantly increased after the implementation of flipped learning. In addition, flipped learning also promotes the students' autonomous learning. However, the students also expressed that flipped learning also has disadvantages in terms of the time consumed to complete the assigned online materials and the lack of ability in operating computers, software and LMS.

In connection with the disadvantages mentioned by the participants, it is highly recommended that the lecturer ensures that the materials provided online are effective and interesting. The videos that are selected should not have too long duration that might cause students to be bored and decide not to continue watching the video. Lecturers should consider making several short videos instead of one long video. The materials have to be selected carefully so that the time that the students use to access the materials will not be wasted. Furthermore, the lecturer should allocate special time to demonstrate the way to use of computers, necessary software and features in the LMS to the students so that every student knows what exactly they have to do. Further research with long-term implementation of flipped learning with larger sample are encouraged to provide more reliable results.

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