THE EFFECT OF FLIPPED CLASSROOM STRATEGY TOWARD STUDENTS READING COMPETENCE IN THE ENGLISH FOR NURSING

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Abstract

This study aimed to identify the effect of flipped classroom strategy toward reading competence between students who are taught using flipped classroom and those who are taught using conventional strategy. The study employed quasi experimental and used Non-equivalent Control Group Design. There were 80 respondents of the 3rd semester nursing students of STIKES Bali recruited as the sample through purposive sampling strategy. The data were collected by using pre-test and post-test to measure students' reading competence. The findings indicated that there was a significant difference between experimental and conventional group. The average score of experimental group in pre-test was 49.05, while the post-test was 78.58; the increase was 29.53. Meanwhile, the average score of control group in the pre-test was 45.55, while after the post-test was 58.48; the increase was 12.93. The t test obtained the value of t count 12.737. The value of t table with df 39 at a significant level of 5% was 2.0226. Therefore, t count> t table (12,737> 2,0226) and the significance value is lower than 0,05 (0,00 <0,05). The students taught using Flipped Classroom achieved better in reading competency than those who were taught using conventional teaching. In conclusion, Flipped Classroom is an active learning strategy that can be applied in the classroom, in which the learning process is reversed, that is, from the student to the teacher or student-centered learning.

Keywords: Conventional, English for Nurses, Flipped Classroom, Reading Competence

INTRODUCTION

Reading is an activity in which the readers seek for meaning in the purpose of a written text. In other word, reading is an active process in which the reader transfers the ideas, concept, and feeling between source of information that they know in the prior knowledge and what the text says in order to get some information stated on the text. It is an interaction between reader and printed language to obtain meaning in order to get information and knowledge. In addition, Seyler (2004) defines that reading is a process to get or construct the meaning of a word or group of words. Reading contributes a part of language skill that cannot be separated from other language skills. In line with this, Johnson (2008: 3) states that reading is the practice of using text to create meaning. The two key words here are creating and giving meaning if no meaning is created, no reading occurs. Pang, et al. (2003) state that reading is about understanding written text and a complex activity that involve both perception and thought. Reading consists of two related processes: word recognition and comprehension. Word recognition is where the process of how written symbols correspond to a certain language while comprehension is the process of how to make sense of words, sentences, and connected text.

Teaching reading becomes very important since it can improve the students' competency to gain knowledge and information. Moreover, the curriculum describes some objectives as a guidance which will encourage the students to be able to add some important points in reading in order to comprehend health journal, to compose the thesis for their final requirement in order to achieve their bachelor degree in nursing such as: to be able to find the main idea of the text, to find implicit and explicit information, master new vocabularies, be able to get the meaning of words, phrases, and sentences, and determining of a text. In addition, the students also require mastering English as the goal of the curriculum to produce nurse with high standard quality who able to master

English well to compete in the international work place or to work in an international hospital. In fact, there are many students frequently had problems in reading competency. It could be seen from the result of a preliminary observation by researcher at the third semester bachelor of nursing students at Sekolah Tinggi Ilmu kesehatan Bali. Most of these students had problem in reading competency, it also could be seen from the result of the middle test showed that they have low score in reading. In addition, the researcher found that the students learnt reading through conventional learning strategy, it was silent reading strategy in which can make the student feel bored. In this case, the students needs more time in the classroom to comprehend the text before they answer the questions. There is lack interaction between students and lecturer because the students are busy to comprehend the text in the classroom and less group discussion. The lecturers need to work hard in giving reinforcement to make them motivated in joining the discussion. Furthermore, based on the interview which has done by the researcher, there were most of students feel discouraged and frustrated to read English texts. It is because the lesson is commonly started off with reading a long passage and followed by answering a series of questions; in addition, the students has lack of vocabulary mastery, thus, the students felt the reading text is difficult. This problem also made the students unmotivated to learn English especially in reading. Based on the observation above, the researcher found that the students face difficulties in comprehending the text itself.

There are many possible factors contributing to that fact above. Some of the problems may be due to intrinsic factors to the students, while the others are due to extrinsic factors. From the extrinsic factors, the teaching and learning strategy is one of the most powerful factors. This study then concerns to the way how to solve those factors above, the lecturer needs to pay attention to use appropriate strategies in teaching reading. It is because education is a field which is constantly changing and adapting to meet the needs of the students in learning (Srivastava, 2014). A selection of a teaching strategy which underlies student-centered learning is necessitated. There is one of them which is able to mainly foster comprehension as well as to lead students to be independent constructive reader. The strategy is flipped classroom, it was brought and popularized by Jonathan Bergmann and Aaron Sam. It is called flipped classroom because it flips the role of the class based teaching and home study; Moreover, this means the learning material can be pre-recorded by the lecturer and adding additional resources integrated through electronic media in which the students can access in their own time, prior to meeting as a class group (Bergman, et al. 2012). Flipped classroom inverts the normal learning process, it moves the lecturers outside the classroom and uses learning activities to move practice with concepts inside the classroom, Strayer (2012 p. 171) in Srivastava (2014). Flipped classroom strategy can help the students in managing time in the classroom, by using this strategy the lecturer can decrease the amount of time that she or he spends directing the from front of the class and also it can increase the amount of time that the lecturer spends with every student in the class. Bergmann and Sam (2012) stated that flipped classroom is increasingly popular along with the availability of technical skills for students and teachers. This means that the class can be recorded by the teacher and additional resources that are integrated through electronic media where students can access it whenever they want before class begins. In addition, Bristol (2014) explains that there are several factors that support the need to apply the flipped classroom strategy, including the advantages of subject matter (content overload) and students expect variations in the learning process.

Based on the explanation, the researcher is interested to identify whether there is any significant effect in reading competency between the students who are taught by using flipped classroom and those who are taught by using a conventional learning strategy. The investigation conducted

at the third semester Bachelor of nursing students at Sekolah Tinggi Ilmu Kesehatan (STIKES) Bali in academic year 2017/2018. Teaching reading by using flipped classroom could be more fun and interesting for the nursing students because they have more time to read the text, or health journal before the class because the text is given minimum a day before the class begins and it could improve their reading competence by having prior knowledge on what they are going to discuss in the class. In addition, the students have more time to do discussion in the class with the teacher to discuss the questions and difficulties or the meaning of the text that they do not understand especially for nursing reading text that quite difficult for the students which is containing medical term. Comparing with the conventional strategy, the students do not have much time for the discussion because the students are given the text directly in the reading section in the class. They spend much time on reading and understanding the text rather than having discussion about the difficulties that they find. Thus, the objective of the study was to find out whether there is significant effect in reading competency between the students who are taught by using flipped classroom and those who are taught by using a conventional learning.

RESEARCH METHOD

This study employed quasi experimental and Nonequivalent Control Group Design with quantitative approach in collecting the data by comparing the result of pre-test and post-test of the respondents. Furthermore, this study conducted at Sekolah Tinggi Ilmu kesehatan (STIKES) Bali at the third semester bachelor of nursing student in academic year 2017/2018. There were 80 respondents recruited as the sample and decided into two groups classification, those were control group and experimental group. The data then analyzed by using Independent Sample T-Test. In this study there were 2 variables, those are an independent variable and a dependent variable. Flipped classroom was independent variable, in which the students' reading competency was the dependent variable. A

test of reading competency was used to determine students' reading competency which was consisted of 50 multiple choices and an essay. This test administered for both experimental and control group after treatments were conducted. The test type used in this research was the form of multiple-choice items and essay. Teaching scenarios used as guidance for lecturer in conducting the lesson for both experimental and control group. The lesson plans were prepared in which 8 lesson plans for both groups and 4 meetings of teaching section for each group. Teaching material consisted of several topics that used along with the research periods. These materials were given to both control and experiment groups which meant that both groups had been taught the same teaching materials.

There were three stages of research procedure that implemented in this research. They are the preparation, implementation, and finalization of the research. Firstly was the preparation, there were many things that were prepared before conducting the research as follows: (1) Deciding sample of the research, (2) Trying out the reading instruments to know the reliability and validity of the test, (3) Conducting pre-test to identify the score of the students, (4) Designing the lesson plans for both experimental and control group. (5) Preparing reading materials for both experimental and control group. The reading materials can be an article or a paragraph. The selection of the reading materials was based on the following criteria: (a) level of difficulty, (b) level of interest, and (c) variety of topics related to the real world. (6) Administering pre-test to obtain data of the students. The next stage was the research implementation; the research was implemented based on the schedule of each class. The last was the research finalization. After finishing implementation stage, the scores from the pre-test and post-test given of both experimental and control group as the data of this research are then calculated and analyzed. The attained data analyzed through two steps, (1) descriptive statistical analysis and (2) inferential statistical analysis. The descriptive statistics analyze data in term of

central tendency and spread of dispersion. Inferential Statistical Analysis by Prerequisite Tests: Normal distribution of data conducted to know whether the obtained data are distributed normally. Meanwhile, homogeneity of variance was done to identify whether the data were homogeneous as well as to convince that the difference which appears in hypothesis testing occurs as a result of the difference in group. Normality of the data was analyzed by Kolomogorov-Smirnov whereas homogeneity testing calculated by applying Levene formula. Hypothesis Testing: to analyze the data inferentially, ANOVA was used which was followed by Tukey test.

FINDINGS AND DISCUSSION

The findings of this research are in a form of students' scores of reading competency (pre-test) and (post-test). The samples of the study were two groups of third semester of bachelor nursing students in English for Nurses subject. Both groups were taught by implementing difference strategies. The experimental group was taught using Flipped Classroom strategy, while the control group was taught using conventional teaching strategy. Before applying the teaching strategy, the students were given the pre-test to know the reading score of the students. Next, the treatment was conducted in four meetings for each group. At the end of the treatment, post-test of reading competency was administered to both groups. The data were analyzed by using two form of statistical analysis, namely; descriptive statistic analysis and inferential statistic analysis. In inferential analysis, the test of normality and homogeneity of variance were analyzed first to make sure that both groups were in normal distribution and homogenous. The requirements were whether or not the data were normally distributed and variances homogenous.

The data of descriptive analysis of students' reading competency score (pre-test) of experimental group students before the treatment. There were 40 students as the experimental group. The mean score of this group before the treatment was 49.05, the median was 48.50 with standard deviation was 8.394, the minimum score was 25 and the maximum score was 71. However, the data of the descriptive analysis of students' reading competency score in experimental group students after the treatment (post-test). There were 40 students as the experimental group who were taught by using flipped classroom strategy. The mean score of this group after the treatment was 78.58, the median was 82.00 with standard deviation was 12.055, the minimum score was 49 and the maximum score was 97.

On the other hand, the data of descriptive analysis of students' reading competency score of control group students before the treatment (pre-test). There were 40 students as the control group. The mean score of this group before the treatment was 45.55, the median was 44.50 with standard deviation was 10.903, the minimum score was 24 and the maximum score was 65. However, The data of descriptive analysis of students' reading competency score of control group students after the treatment (post-test). There were 40 students as the control group who were taught by using conventional teaching strategy. The mean score of this group after the treatment was 58.48, the median was 58.00 with standard deviation was 10.008, the minimum score was 37 and the maximum score was 75.

After the data were described, then the data were analyzed inferentially to find out the answers of the research questions. But before conducting the inferential analysis, pre-requisite tests were done. This pre-requisite tests cover several things such as normality and homogeneity of variances tests. This test was administered by Kolmogorov-Smirnov formula. The result of the calculation discovered that all the groups of data were normal in distribution. It can be proved from the value of Kolmogorov-Smirnov > 0,05 for all groups of data. It meant that the data of students' reading competency were obtained from normal distributed population.

Homogeneity test was done to know whether or not the sample of this study under homogenous. In this case, the variant of the data in groups should be the same. The

researcher use SPSS 23 for windows and applied Levene's test to test the homogeneity of the variance. In Levene's test, the variance of groups were considered homogeneous if the significance value was higher than 0.05. The result of Levene's test showed that the significant score based on sig. was 0.059 which was higher than 0.05, this indicated that the reading competency of the students between experimental and control group was obtained homogenous sample. Therefore, the hypothesis could be computed using ANOVA.

Based on the results of the t-test in teaching reading by using Flipped Classroom found that the mean score of pre-test was 49.05 and the result of post-test 78.58; so that the increase of the score was 29.53. Then based on the t test obtained the value of t_{count} 12.737. The value of t_{table} with db 39 at a significant level of 5% was 2.0226. Therefore, $t_{count} > t_{table}$ (12,737 > 2,0226) and the significance value was lower than 0,05 (0,00 <0,05). It can be concluded that there was a significant increase in the scores of the experimental group student in reading competence by using Flipped Classroom. This finding was supported by the research result that was conducted by Khadaragy (2016) which aimed to determine the effect of the Flipped Classroom learning model on the reading achievement of sixth grade female students at Qurtoba Public School. There were 55 students recruited as participants in the study. This study found that there were significant differences between the performance of the experimental group and the control group in the pre-test and post-test. Flipped Classroom is an active learning method that can be applied in the classroom, in which the learning process is reversed, that is, from the student to the teacher or student-centered learning (student center learning). In the learning process, there were 3 stages that have been followed by students. First, before reading activity, the lecturers prepared the materials and share it to students through electronic media to be studied at home; then reading activities, the students download the reading material and studied it at home before the teaching and learning activities in the classroom were carried out to have a prior

knowledge of what is being learned; and finally, the reading stage which was done in the classroom made the students have more time to discuss the reading exercises with friends and lecturers to solve the problems found in the readings that have been given. Learning activities become more active and fun. In this case, the lecturer has a role in guiding, assisting and facilitating students.

On the other hand, the results of the t-test of teaching reading by using Conventional strategy showed that pre-test in control group was 45.55; and the post-test was 58.47, the increase was 12.92. Furthermore, based on the results of the t_{count} of 5.480 with a significance of 0.00. The value of t_{table} in df 39 with a significance level of 5% was 2.0226. Thus, the value of $t_{count} > t_{table}$ (5.480> 2.0226) and the significance value was lower than 0.05 (p = 0.000 <0.05). It can be concluded that an increase of 12.92 was significant in the scores of the control group student learning outcomes. Conventional teaching was categorized as a teaching strategy used regularly by lecturers. The learning process focuses on transfer of knowledge from lecturers to students. The students remember what has been taught by the lecturer is an indicator of teaching success. This meant that the emphasis of teaching was on memorizing rather than on understanding. Therefore, conventional teaching is closed to the following characteristics: passive students and active lecturers, lecturer-oriented learning, knowledge transferred from lecturers to students. In line with this research, conventional teaching can be defined as reading instruction which requires students to read certain parts, translate their parts into Indonesian, and answer sheets of paper containing questions related to reading.

According to the findings above, there were differences in the result of reading between the students who were taught by using Flipped Classroom and conventional strategy. The mean score of the post-test in experimental group was 78.58 and the mean score of post-test in the control group was 58.48; so that there was a difference of 20.10. In the post-test score, the experimental class

also found t_{count}> t_{table} at a significance level of 5% (41,223> 1,9908) which meant that H_o was accepted. There was a significant increase after the treatment and the post-test control group was obtained also t_{count}> t_{table} at a significance level of 5% (36,955> 1,9908) which meant that H_o was accepted. There was a significant increase with conventional treatment and the value of each p <0.05 (0,000 <0,05). It can be concluded that there was an increase in the results score student test experimental group and control group student test results.

According to the analysis, it has been proven that there are significant differences between Flipped Classroom in improving learning outcomes in reading of the third semester nursing students at STIKES Bali in English for Nurses subject in each experimental group and control group. The things that led to the Flipped Classroom teaching strategy have a more significant average and improvement than conventional strategy because students in the lesson learnt actively and it became students centered learning; while the conventional strategy is teacher centered learning. This is in line with the research that was conducted by Ahmet (2015), the study was about the application of classes in foreign language teaching at the School of Education, Yeldiz Technical University, Istanbul Turkey. The purpose of this study was to gain insight into the perceptions of prospective English language teachers at a public university in Turkey about Flipped Classroom in English. Samples from the study were 47 prospective English language teachers who participated in this study. Findings from the study indicate that prospective English language teachers have a positive perception of the application of Flipped Classroom as an integral part of face-to-face courses.

CONCLUSION

It can be concluded that, there was a positive influence on the strategy of reading by using Flipped Classroom in reading competence of the 3rd semester nursing students at STIKES Bali with mean score in pre-test was 49.05 and the mean score of post-test was 78.58, so that the increase was 29.53. There was a significant increase in the score of the learning outcomes of the experimental group students. Then based on the t test obtained the value of t_{count} 12.737. The value of t_{table} with df 39 at a significant level of 5% was 2.0226. Therefore, t_{count}> t_{table} (12.737> 2.0226) and the significance value is lower than 0.05 (0.00 <0.05). Flipped Classroom is an active learning method that can be applied in the classroom, in which the learning process is reversed, that is, from the student to the teacher or student-centered learning (student center learning). In learning with Flipped Classroom, there are 3 processes that have been followed by students who participated, namely before reading, then on reading activities, finally, after reading, that is done in the classroom, students have more time to discuss the practice of questions with friends and lecturers to solve the problems found in the reading that has been given. Learning activities become more active and fun. In this case, the lecturer has a role in guiding, assisting and facilitating students. The success in learning to improve reading competency with the Flipped Classroom is an active learning method that can be applied in the classroom.

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