The Effectiveness of Project-Based Writing towards Students' Mastery of Grammatical Accuracy

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Abstract: Teaching grammar has been one of the most challenging issues in Indonesia. Teacher-centered approach and the lack of students" motivation are among the factors limiting students to master grammar. The study aims at investigating the effectiveness of project-based writing toward students" mastery of grammar based on their motivation level. The study used a 2X2 factorial research design involving 60 students in two groups in one of high schools in Landak Regency, West Kalimantan. The data were collected through test and questionnaires. SPSS 20 was used for analyzing the data. The finding reveals that project-based writing is effective toward students" mastery of grammar. Besides, motivation level is also effective toward students" grammatical accuracy. Lastly, the analysis of variance shows that there is no interaction among students" motivation, techniques, and students" grammar with the level of sig. value at 0.821. The study suggests that teachers must be able to consider the presence of both a project and motivation in teaching and learning, especially to teach grammatical accuracy.

Keywords: *Project-Based Writing, Motivation, Grammatical Accuracy*

INTRODUCTION

Teaching English in Indonesia is an essential issue. However, students are mostly unfamiliar with the use of English in their daily life. Therefore, English language learners in Indonesia are mostly prone to grammatical inaccuracy. There are several factors which cause the barrier of learning English. One of them is because the grammatical rules in Indonesian are different to English. English language learners encounter several difficulties in mastering writing skill and the concept of grammatical features such as the use of tenses, preposition, pronoun, etc.

Robb et al. (1986) mentioned that there are several factors hindering students from mastering writing skill. Among others is lack of motivation and confidence to produce language output especially in a written form. Besides, a limited language exposure and writing task difficulty are among those limiting factors.

Several studies on collaborative learning in foreign language setting are needed (Storch, 2005; Skehan, 2009; Dobao, 2012). However, for beginner writers, writing articles is very challenging. According to the researcher's observation, most of students are difficult to write because the writing task is intimidating. The instruction given by teachers is mostly discouraging because teachers dominate the class. Therefore, choosing an approach which can foster students" engagement in writing is very essential. One of the techniques is project-based writing. Project based collaborative writing is a technique of learning where some learners will work in group to organize their learning around some projects for their writing class (Thomas & Mergendoller, 2000).

Currently, a further inquiry to address is whether or not project-based learning in writing class is better than collaborative learning itself for the different students with different learning motivation. The previous studies from some project-based learning and collaborative learning have not really touched the possibility of other variables that might affect learning process like motivation factor. A highly-motivated student might be different in taking their learning process as compared to a low-motivated student.

By discussing the project-based learning, researcher attempts to answer the following research questions: 1) is the project-based learning effective to be used to teach grammar for the students? 2) is the motivation level effective toward students' mastery of grammatical accuracy? 3) is there any interaction among students' motivation, project-based writing and students' grammatical accuracy?

LITERATURE REVIEW

The body of literature has shown that cooperative and collaborative learning strategies can improve students' academic performance (George & Dale, 1990; Storch & Wigglesworth, 2010; Shehadeh, 2011). Shepperd (1998) in his study also reveals that the use of project-based learning and collaborative works have positive influence on students" acquisition of critical thinking and enhance their academic performance.

According to some experts, collaborative learning itself can be defined as a learning approach where learners can work as a group to solve a particular academic task (Slavin, 1990; Gillies, 2006). This approach enables the learners to build an interaction among students and increase their confidence because they can engage in a learning process actively with their peers. Collaborative learning is stemmed from the assumption that language learners are „the creators of that language" themselves (Brown, 2001). Under this conception, language learners are the one who have the individual intrinsic motives to develop a writing composition in collaboration with other individuals as part of their social communication. Swain (2001) explains that the collaborative tasks are communicative tasks in the sense that they involve the learners in comprehending, manipulating, producing, or interacting in the target language while their attention is principally focused on the meaning rather than the form.

Project based collaborative writing is a technique of learning where some learners will work in group to organize their learning around some projects for their writing class (Thomas & Mergendoller, 2000). The projects are designed to activate students" higher thinking skill. The role of students is central in project-based collaborative writing as they are expected to learn from autonomous learning process. The project based learning stimulates the students to engage more in synthesizing, forecasting, producing, evaluating, and reflecting process. Additionally, project-based collaborative writing is also effective in improving students" social participation behavior (working together, initiating, managing, intergroup awareness, and inter-group initiating). Further, Shepperd (1998) also finds that the use of project-based collaborative writing and collaborative works have positive influence on students" acquisition of critical thinking.

In regard to language learning, one of the most important aspects is grammar. Grammar can be defined as a structural regulation of language. Grammatical accuracy can be also defined as the appropriate use of grammar in a students' composition. Grammatical accuracy is measured by seeing the proportion of error-free sentences of all sentences.

Beside grammar, another aspect to consider in learning language is motivation. A lot of research in a natural language setting has shown the positive correlation between a student motivation and their language attainment on students (Pintrich & Groot, 1990; Schunk, 1991; Skinner & Belmont, 1993). According to Schunk (1991), motivation is the power of learning activator from a learner. The power and effort include the ability to arrange any necessary preparation to achieve certain academic purpose. Winkel (2006) explains that motivation is categorized into two domains, namely internal and external motivation. Both motivations are essential for language learners. Motivation also refers to the level of self-engagement that students own toward their academic performance.

METHODOLOGY

This study employed experimental research using 2 X 2 factorial design to investigate the effect of the project-based collaborative writing technique for students with high and low motivation students toward their grammatical accuracy in writing.

The population of the study was the tenth graders of one of senior high schools in Landak Regency in the academic year of 2017/2018 West Kalimantan. The sample technique used was cluster random sampling. The sample included sixty students from two classes. The instrument of data collection included test, questionnaire, and students" writing project. The questionnaire the Motivated Strategies for Learning Questionnaire (MSLQ) developed by Pintrich & Groot (1990) was used to determine students" level of motivation. All instruments were discussed with the educational experts before being used to collect the data. The experts, who then validated the instruments, were two English lecturers at Pamane Talino College of Education. In order to minimize the human error, biased judgment, and subjectivity, the researcher implanted inter-rater reliability.

FINDINGS AND DISCUSSION

The implementation of project-based collaborative writing technique in this study was started by instructing the students to make a group of five in every meeting. However, before the students did the project, researcher asked the students to discuss some topics or watch videos as the ice breaking activities. The projects required the students to work collaboratively in doing one particular project. The topics and projects in each meeting were different. At the end of each meeting, the students were asked to give feedback for the other groups dealing with the story and also their grammatical accuracy.

The icebreaking activities were given before implementing the project-based collaborative writing. The examples of the icebreaking topics were "the best book you have ever read" and "the best gift you gave ever got". The ice breaking activities were particularly aimed to activate the students" background knowledge before the technique was implemented. Besides, the students had opportunity to interact with their members of group.

After the icebreaking activity, researcher instructed the students to make a group of five. In the experimental group, the students were asked to do some projects in each meeting. The projects required the students to work collaboratively to do one particular project. The students had to work in a group that they called a "project group". Then, researcher assigned them to discuss the goal of mission each day. The project topics used mainly involved the art and collaborative writing. For example, the students were asked to compose a group text at the end of each meeting.

Each student within the group had to be responsible for one particular grammar aspect in their writing. The students received information from the researcher about the use of verb tenses, prepositions, articles, and pronouns. Researcher who served as teacher, asked each student to master one grammar aspect in each group with the help of researcher. A student with specific expertise had to give comment and provide constructive feedback in terms of students" grammar that they had mastered. Therefore, in one group, there were students who had to master the concept of article, preposition,

verb tenses, and pronoun. In this activity, the role of teacher was central. The teacher was the facilitator when the students found difficulties during the discussion process.

After giving the comments, each grammar expert came back to their group and discussed the final revision for their own work. Eventually, each project group produced one jointly written text in the end of the meeting. They were asked to present the result of the project in front of the class. They were also encouraged to provide another feedback for other groups by giving them feedback notes.

The project in the first meeting was to create a movie advertisement. The students had to draw a movie poster that they like and then put a brief description for the poster they made. After finishing the project, the students were asked to take a look at the other groups" works and to give feedback on their writing. The students then came back to their group and discussed their finding about the other groups" works. Then they had to revise their own project. After the discussion, in five minutes, the group had to provide a brief oral presentation to the rest of the class.

The process of the activity was repeated for the second and the third meetings. However, in the second meeting, the project was to create a picture story. The students worked in group to draw sets of picture about fable stories. In the third meeting, the students were asked to create a chained story. The students worked as a whole class to create a story. The teacher started one sentence, one student continued the sentence, and the next students took turn. In the experimental group, the students were not only required to engage in a teamwork activity to do a project, but also actively participated in the discussion and feedback session.

The control group was administrated differently. Although the students in control group used collaborative technique as well, the class did not involve particular projects to solve. The class in control group used the default technique that was suggested by the National Curriculum namely collaborative technique. The technique only suggested the students to collaborate with their peers in doing the writing task without any necessary effort to look for a project solution.

In each meeting, the students in control group received regular class using collaborative instruction as their main activities. The first, second, and third meetings did not have special projects to solve. The discussion was the main activities for the students in the control group. The students had to submit group text also at the end of each meeting.

The icebreaking activities were given to the students in control group in order to activate their background of knowledge. The materials were given by the teacher and students were encouraged to actively participate during the lesson. In the end of the meeting, students were instructed to write jointly written texts.

It is important to note that researcher always monitored the students" progress individually and collectively during the implementation of both techniques. As a whole, the treatments were administered in three meetings. Each class consisted of 90 minutes class meeting. In the experimental group, there was 5 minutes provided for the icebreaking activities, 45 minutes to conduct students" initial discussion and project, and 25 minutes for material comprehension. At the end of the meeting, the students had 15 minutes to write jointly written text. In the control group, students had 45 minutes for the collaboration without any hand-on project to solve. They were just asked to discuss the material and to write a joint text. The teacher piloted the trial before doing the treatment in both groups. During the process of both expert group and main group discussion, the teacher always assisted them in order to be the facilitator when the students found difficulties.

1. Results

a. The significance of techniques

The result of significance of the project-based collaborative writing is measured by looking at the table of tests of between-subjects effects. By looking at the value of significance (sig.) for the technique, researcher draws a conclusion to answer the hypothesis.

The hypothesis:

H_0: Project-based writing is not effective to be used to teach students" grammatical accuracy.

H_a: Ha: Project-based writing is effective to be used to teach students" grammatical accuracy.

From the tests of between-subject effects table, we could see that the value of sig. for technique is 0.022. This value is lower than 0.05 of standard error. Therefore, it can be concluded that the Ho is rejected and Ha is accepted. Therefore, project based writing is effective to be used to teach grammar for students.

b. The Significance of Students' Motivation

The motivation of the students is investigated by looking at the table of tests of between-effects. The significance is showed in the column of significance value (sig.) for the motivation. The score appeared on the column for motivation then is reviewed to determine the accepted hypothesis.

The hypotheses are:

H_o: Motivation level is effective toward students" grammatical accuracy?

H_a: Motivation level is not effective toward students" grammatical accuracy?

From the table of tests between-subject effects, we could see that the value of sig. for motivation is 0.38. This value is higher than 0.05 of standard error. Therefore, it can be concluded that the Ho is accepted and Ha is rejected. The result concludes that the level of motivation is effective toward students" grammatical accuracy.

c. The Interaction among Students' Motivation, Techniques, and Students' Grammar

Another inquiry to answer through this study is whether or not there is an interaction among students" motivation, techniques, and students" grammar. The study investigated the interaction by looking at the significance value (sig.)

From the table of tests between-subject effects, the result reveals that the value of sig. for motivation is 0.821. This value is higher than 0.05 of standard error. Therefore, it can be concluded that the Ho is accepted and Ha is rejected. The result basically shows that there is no significant interaction among students" motivation, techniques, and students" grammar. Therefore, this result implies that the variables do not affect each other.

From the questionnaire, students in the experimental group say that they enjoy the group work and projects they have done so far. The feedback and discussion session help them to understand the grammar better. The students in control group also believe believed that the collaborative activities would work better when they have hand-on project to do. By having a project, they are challenged to actively participate in teaching and learning activities.

Most students with high motivation students respond the idea of collaboration and project-based collaborative writing. They felt that the atmosphere in project-based collaborative writing really encouraged them to learn more. However, for the students with low motivation, the collaborative atmosphere sometime intimidates them to participate in learning. Most students with low motivation in this study are introvert. They also think that they could learn best by themselves. By having individual learning, they feel more secured and less intimidated.

2. Discussion

This study mainly aims to investigate the effectiveness of the project-based collaborative writing in enhancing students‟ grammatical accuracy. The study also tries to reveal how motivation really affects the students‟ grammatical accuracy. By comparing two classes using different techniques, namely the project-based collaborative writing and the collaborative learning, researcher have analyzed the results to reveal the significance of both the techniques and the motivation using experimental study.

In this study, researcher used two groups: the experimental and the control groups. The experimental group was taught using the project-based collaborative writing and the control group is taught using collaborative learning. The body of literature has provided strong support toward the use of project-based learning, especially in writing (Storch: 2005, Skehan: 2009). However, there is a further need to investigate how this project-based collaborative writing affects the students‟ grammar with different level of motivation.

This study believes that the use of project-based collaborative writing is effective to activate the students‟ learning interest and motivation. The project-based learning is proven to be effective in improving students‟ grammatical accuracy. This finding is in favor of the previous studies showing that the project-based learning is significant to enhance students‟ academic performance in the natural language setting (Horan, Lavaroni, and Beldon: 1996, Storch 2005). The experiment in study shows that project-based collaborative writing is also effective to be used to improve students' grammar, both for the highly-motivated students and also the low-motivated students in foreign language setting. The students in the experimental group receive better improvement as compared to the students in the control group.

The experiment on the project-based collaborative writing also reveals that the students learn grammar in a more positive and friendlier atmosphere. The students are challenged to create a constructive investigation within their own learning. Thomas

(2000) strengthens this point by saying that a project-based learning provides an investigation which is a goal-directed involving inquiry, knowledge building, and resolution. A good project-based learning must involve the transformation and construction of knowledge on the part of the students. Therefore, when the central activities do not challenge students, the technique cannot be called as the project-based learning.

The experiment of this study is in favor with the previous suggestions from the area of collaborative works. The students have undergone some activities and projects which enable them to advocate an autonomous and meaningful learning. They are the center of learning and they also contribute to the other groups" learning. When they are asked to create and make a movie poster or chained story, the students are positively challenged to expand their creativity and collaboration to achieve better performance. Hence, the students are very enthusiastic to show their best in each meeting.

The active participation and learning confidence of the students in experimental group also show that the project-based collaborative writing is effective to activate students" critical thinking behavior. The project based learning does not only stimulate the students to engage more in synthesizing, forecasting, producing, evaluating, and reflecting process but also boosts up the students" social participation behavior such as working together, initiating, managing, intergroup awareness, and inter-group initiating.

In regard to the effect of motivation in learning a language, the result shows that the motivation does not significantly affect the students" grammar. Although the results of pretest and posttest in both groups show an improvement, such improvement is not significant. The students in both experimental and control groups believe that the technique helps them a lot in overcoming the grammar issues. The low motivated students are assisted to participate during the lesson by the collaborative works they do with their peers. Therefore, motivation does not appear to be a significant factor to improve students' grammar in this study.

This study also reveals that there is a no interaction among students" motivation, techniques, and students" grammar. The result of significance value shows that the techniques affect students" grammar and the students" motivation does not affect their grammar score.

CONCLUSION

The results indicate that the project-based collaborative writing is effective to be used to teach students grammar. The results show that students with high motivation in the experimental group have the highest improvement score among other groups. The students with low motivation in the control group have the lowest improvement score among others. The results also show that there is no interaction among students" motivation, techniques, and students" grammar with sig. value of 0.821.

Suggestion

Having the treatment of project-based learning to the high school students in Landak Regency, the researcher has several suggestions for teachers, students, and future researcher with similar topic. Teachers and schools are strongly recommended to apply project-based learning in their classroom. Project based learning gives a broadened chance for the students to engage in their learning activities. Additionally, project based learning can promote social interaction among students and enhance their higher thinking skill.

In implementing project-based collaborative writing, teachers must be creative in designing the project and addressing the instruction. Ideally, the project must be based on the authentic problem and must not burden the students especially dealing with time allocation. However, teachers must understand that the students are the center of learning. The participation of teachers is only expected as the facilitator only. The autonomous learning environment is very important in project-based collaborative writing. This way, students can receive their knowledge without being lectured by the teachers all the time.

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