



## PROJECT-BASED LEARNING IN TEACHING GRAMMAR FOR HIGH AND LOW MOTIVATED STUDENTS

The Case of The Tenth Graders of Sman 1 Bangsri In The Academic Year of 2013/2014

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### Abstract

Although the present body of literature supports the use of *project-based learning* (PBL) to teach grammatical accuracy, there is still huge urgency to investigate its effectiveness for language learners with different motivation. This study aims to investigate the effectiveness of PBL, the effect motivation in teaching grammar for ten graders and the interaction among techniques, motivation, and students' grammar. The study is a 2X2 factorial research design involving 48 students in two experimental groups and two control groups. The samples are divided into high and low motivated where the experimental groups are taught using PBL and the control groups are taught using collaborative learning. The data are collected by using a pretest and a posttest. *Statistical Package for Social Sciences* (SPSS) is used for analyzing the data. The content analysis reveals that students' motivation does not effect students grammar significantly in both experimental and control groups. The finding also shows that both techniques are effective to improve students' grammatical accuracy for high and low motivated students. The analysis of variance shows that there is no interaction among students' motivation, techniques, and students' grammar with the level of significance at 0.934. The study suggests that teachers must be able to consider the presence of both variables in teaching and learning, especially to teach grammatical accuracy.

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## INTRODUCTION

The curriculum shift in Indonesia from School-Based Curriculum to Curriculum 2013 has instigated massive transition toward Indonesian education system. The transition influences some changes on learning approach, teaching material, learning assessment, and other curriculum aspects. The said curriculum advocates more on students' autonomous skill to learn and to study at school.

Curriculum 2013 is believed to enable students to learn the new information based on a scientific inquiry. The scientific inquiry constitutes the students not only to learn the knowledge by memorizing it, but also to construct the knowledge through several inquiry steps namely observing, questioning, experimenting, associating, networking/communicating (*Pusat Kurikulum*, 2013:3). The scientific approach in this curriculum is implemented for all subjects including language learning. The language teachers, especially English, therefore, must fully understand the stages of scientific approach.

Teaching grammatical accuracy in writing is challenging for teachers. According to Robb et al. (1986:85), there are several factors limiting a language learner to improve their writing skill. One of the factors is lack of confidence to produce language output especially in a written form. Besides, a limited language exposure and writing task difficulty are among those limiting factors.

Dealing with such problems, several experts have suggested the solution through implementation of a group work activity (Storch, 2005:153; Skehan, 2009:510; Dobao, 2012:40). The approach is believed to be effective to boost up the students' writing skills. A study in Indonesia conducted by Ivone (2005:195) is in favor with the body of literature supporting the collaborative approach. The study reveals that a better writing composition can be achieved through collaboration activities among students.

By discussing the project-based learning, the study aims to investigate the effectiveness of the Project-Based learning in teaching grammatical accuracy for the high-motivated students as compared to its effectiveness in teaching the low-motivated students. This study is also conducted to find out the interaction among the techniques, students' motivation, and grammar.

## Literature Review

Collaborative learning can be defined as a learning approach where learners can work as a group to solve a particular academic task (Slavin, 1990:318; Gillies, 2006:279). This approach enables the learners to build up such an interaction with the other learners and boost up 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, 2001:45). 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. When language learners are allowed to actively use the language in some collaborative tasks, they can achieve better comprehension. Swain (2001:46) 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.

The project based collaborative learning is a technique of learning where some learners will work in group to organize their learning around some projects (Thomas & Mergendoller, 2000:43). The projects are designed to activate students' higher thinking skill. The students are central in project-based learning 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 learning is also effective in boosting up the students' social participation behavior (working together, initiating, managing, intergroup awareness, and inter-group initiating). Further, Shepperd (1998:779) revealed that the use of project-based learning and collaborative works had positive influence on students' acquisition of critical thinking.

One of the most important aspects on language learning is grammar. Grammar can be defined as a structural regulation of language (DeKeyser, 1995:382). Most experts believe that grammar is the heart of language teaching and assessment. Therefore, teaching the correct grammar is central to language learning. Accuracy deals with the correct form of grammar that a language learner makes. Grammatical accuracy also relates to whether a language learner uses an appropriate context for the expected text type of their writing (Storch, 2005:154; Skehan, 2009:515). Therefore, grammatical accuracy means the use of correct and accurate grammatical rule in a language production.

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, 1990:35; Schunk, 1991:211; Skinner & Belmont, 1993:578). According to Schunk (1991:215), 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 :108) explains that motivation is categorized into two 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.

## RESEARCH METHOD

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

The population of the study is the tenth grader students of SMA N 1 Bangsri in the academic year of 2013/2014. The school is located in Jepara, Central Java, Indonesia. The researcher only took two classes which were XI MIA 3 and XI MIA 4. There were 48 students participated in this study. This is important to underline that both classes involved in this study are the English intensive classes. All students who are enrolled in this class are basically considered as the intermediate English learners as they have passed on English entrance test in the beginning of the academic year in that school.

The instrument of data collection includes pretest and post-test, questionnaire, students' writing project, and field notes. The questionnaire the Motivated Strategies for Learning Questionnaire (MSLQ) developed by Pintrich & Groot (1990:35) is used to determine students' level of motivation. All instruments were discussed with the educational experts before being used to collect the data in this study. The experts who then validated the instruments were two English Professors at Semarang State University and also an English teacher in SMA N 1 Bangsri. In order to minimize the human error, biased judgment, and subjectivity, the researcher implanted inter-rater reliability.

## RESULTS 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. However, before the students did the activity, the researcher asked the students to discuss some topics or watch videos as the ice breaking activities. The projects

required the students worked collaboratively to do 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 project in the first meeting was to create a movie advertisement. The students had to draw the 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 gave 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. The process of the activity was the same to the second, and the third and meetings. The only difference was about the topic of the projects. In the second meeting, the project was to create picture story. In the third meeting, the students were asked to create a chained story.

In the experimental group, the students were not only required to engage in a teamwork

activity to do a project, but also actively participate in the discussion and feedback session. The active discussion and engagement toward the project was the key of success for the students to learn grammatical accuracy. The control group was administrated differently. Although the students in control group used collaborative writing, the activities did not involve particular projects.

Students' writing compositions are analyzed according to their grammatical accuracy. From the calculation, the mean ratio of grammatical accuracy for high-motivated students in the experimental group is increased until 35.58%. The mean ratio of grammatical accuracy for low-motivated students in the experimental group is increased until 25.55%. And in control group, the mean ratio of grammatical accuracy for high-motivated students is increased as much as 28.22%. And there is 15.52% improvement of grammatical accuracy for low-motivated students in the control group.

**Table 1.** The results of significant improvement on grammatical accuracy

Group	Pretest	Posttest	Improvement
Experimental-High Motivation	24.15%	59.29%	35.14%
Experimental-Low Motivation	28.39%	56.86%	28.47%
Control-High Motivation	34.96%	62.01%	27.05%
Control-Low Motivation	32.30%	52.01%	19.71%

From the data, the improvement mean of students' grammar for the experimental group both in high and low motivated students is higher than the control group. The data also revealed that the mean ration of high-motivated students in experimental group is higher than the control group, while the mean ratio of the low-motivated students in experimental group is still higher than the control group

The result of the experiment shows that the mean ratio of grammar of the high motivated students in the experimental group is higher than the mean ratio of grammar of the low motivated students in the experimental

group. The higher value of the high motivated students as compared to the low motivated students shows that the project-based learning is more effective to help the high-motivated students than the low motivated students.

The mean ratio of grammar of the high motivated students in the control group is also bigger than the mean ratio of grammar of the low motivated students in the control group. Such value shows that the collaborative learning gives more significant impact toward the high-motivated students than the low-motivated students related to their grammar.

Comparing the same category of the high motivated students in different groups revealed the same trend. The mean ratio of the high motivated students in the experimental group is bigger than the mean ratio of the high motivated students in control group dealing with their grammar. Such result shows that the high motivated students achieve a better grammar when they are taught using the project-based learning as compared to the collaborative

learning. The mean ratio of low motivated students in the control group is also bigger than the mean ratio of the low motivated students in the control group. The result reveals that the low-motivated students tend to perform better when they are taught by using the project-based learning than the collaborative learning

This study also revealed that there is no interactions among both techniques, students' motivation, and students' grammar.

**Table 2.** Tests of Between-Subjects Effects

Dependent Variable:Result					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1442.055 <sup>a</sup>	3	480.685	2.485	.073
Intercept	36544.059	1	36544.059	188.954	.000
Motivation	589.191	1	589.191	3.046	.088
Techniques	851.515	1	851.515	4.403	.042
Motivation * Techniques	1.350	1	1.350	.007	.934
Error	8509.700	44	193.402		
Total	46495.814	48			
Corrected Total	9951.755	47			

a. R Squared = .145 (Adjusted R Squared = .087)

From the ANOVA, the value of technique\*motivation is 0.934. Since the significance number is higher than 0.501, so there is no interaction among three variables. The result means that techniques, students' motivation, and their grammar do not affect each other. The further finding is that the students in the experimental group said that they enjoyed the group work and projects they have done so far. The field notes of the researcher also revealed that the collaboration work in experimental group made students able to interact with their peers positively.

## Discussion

This study investigates the effectiveness of the project-based learning in enhancing students' grammar for both the high and low motivated students. By comparing two classes using different techniques, namely the project-based learning and the collaborative writing

technique, the researcher analyzed the results to reveal the significance of both the techniques and the motivation using experimental study.

The experiment in the study shows that project-based collaborative writing is effective to be used to improve students' grammatical accuracy, both for the high-motivated students and also the low-motivated students. In general, the students in the experimental group received better improvement as compared to the students in the control group.

The experiment of this study is in favor with the previous studies conducted by some experts. The students do the projects which enable them to do autonomous learning. Project based collaborative writing technique puts students as the center of learning. When the students create movie poster or chained story, they are challenged to use their creativity and collaboration to achieve better performance. Hence, the students become very enthusiastic to

show their best in each meeting. Although the students in the control group perform positive enthusiasm in learning, the collaboration among students is limited to the instruction of the teachers. The creativity and enthusiasm is not very well-developed as compared to the experimental group.

The active participation and learning confidence of the students in experimental group also shows that the project-based learning is effective to activate students' critical thinking behavior. The project based collaborative writing 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.

Another inquiry to address in this study is the effect of motivation in students' grammatical accuracy. According to the experiment, the high motivated students perform better grammatical accuracy as compared to the low-motivated students. This result is also in favor to the broader literature which confirms that students with higher motivation tend to achieve better language attainment (Pintrich & Groot, 1990; Schunk, 1991; Papi & Abdollahzadeh: 2012).

This study also reveals that there is no interaction among motivation, project-based collaborative writing, and students' grammatical accuracy. Therefore, both techniques are effective to be used to teach grammatical accuracy for the high and low motivated students.

## CONCLUSION

The results show that students with high motivation in the experimental group had the highest improvement score among other groups (35.14%). The students with high motivation had better improvement than the students with low motivation in control group (28.47%). The

same result is shown in the control group. The high-motivated students (27.05%) improved their grammatical accuracy better than the low motivated students (19.71%). The results also show that there is no interaction among students' motivation, techniques, and students' grammar with sig. value of . 0.934.

## Suggestion

In implementing project-based learning, teachers must be creative in designing the project and addressing the instruction. Ideally, the project must be based on the authentic problem and not burden the students especially dealing with time allocation. The future research toward project-based collaborative writing is expected to investigate more on the other variance of experiment. Although there are a lot of support for the effectiveness of project based collaborative writing, the future researchers also must investigate its effect for groups with different background of financial and economical status or age and other factors.

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