

The Influence of Project Based Learning and Motivation Achievement on Improving Writing Ability

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Abstract

Writing skill is one of the English skills which is often regarded as something difficult to master. Students tend to have less attention to this skill. Even worse, some teachers also often lack of attention to it since it requires more time to check the students work on writing. Consequently, the students' writing competence is difficult to increase. To overcome the problem, the possible alternative the teacher can use is using Project Based Learning since the approach seems to be effective to improve the students' writing competence. The other aspect that can possibly influence the writing competence is Motivation Achievement. In this research, the problem investigated is whether or not there is influence using Project Based Learning and Achievement Motivation in increasing writing ability. The kind of research used is experimental research with nonrandomized control group pretest posttest design. The data analysis used is t-test using SPSS version 21. The result of the research shows that Project Based Learning influences the students' writing ability, while Achievement Motivation has no significant impact on the students' writing ability.

Keywords: Project Based Learning, Achievement Motivation, writing ability

Learning English as tool of communication in Indonesia is increasing in line with the development of Education in Indonesia. The Government of Education in this case the minister of education is trying to develop an effective way to master English due to the increasing need of of English as tool of communication. This development is seen on the rules of English Language development written in Curriculum 2013 especially in the Ministerial Regulation of National Educaiton No. 22 of 2016 about Process Standard of Elementary and High School Education (2016, p. 3). Written in it that the target of teaching learning process includes affective, cognitive, and skill domains.

The aforementioned domains have different psychological processes to improve

students' competences. To force the students to make learning product, it is suggested that the teachers use learning approaches based on Project based Learning. This approach is also important to develop the students' independence ability since the center of this approach is on the students (Sumarni, 2012, p. 172).

Teaching learning process in Senior High School is also related to the principles of the rules above. In learning English, there are two different groups of competences that must be developed namely productive competences (speaking and writing) and receptive competences (reading and listening). Among those competencies, writing is considered as ignored skill. The students tend to have less attention to the skill, even worse, some teachers react the same way to the skill since it forces

the teacher to “work hard” in checking the students’ daily works. This situation makes the students’ writing ability has minimum improvement regardless of its importance.

Writing is a complex activity that involves cognitive and linguistic ability. Cognitive activity is seen on the occurring creative ideas as the result of writing process (Ashman and Conway, 1997), while linguistic competences are shown in the quality of word choice (diction), the implementation of correct grammar, using precise expression, and using sharp punctuation. This complex process of writing often makes the students perplexed, resulting in their boredom.

To overcome the problem and to force the improvement of writing ability there are some techniques that can be used by the teacher. Yet, Problem Based Learning is thought to be the most effective technique for the situation due to its nature. The principle of Project Based Learning is “learning by doing” (Dewey, 1993) which becomes the power making teaching writing successful. The study also focuses on students’ Motivation Achievement since writing subject is regarded as lesson that get a little attention from students. Briefly, this research is focused on investigating the implementation of Project Based Learning to improve the writing ability and the motivation achievement of the students’ class XI IPA SMAN 2 Jember on semester 2 in the academic year 2016/2017.

Motivation achievement (McClelland and Atkinson, 1978, p. 78) is a characteristic of someone that has more expectation than fear of failing. Furthermore, it is also stated that motivation achievement is a tendency of someone to lead and keep behavior to reach achievement standard. The achievement standard is used by the students to evaluate the activity they have ever done. The students who want to reach a good achievement will check whether the activities they have done have been suitable with the criteria determined.

Project Based Learning is a kind of teaching model in which the students are asked

to do the task, commonly termed as Project. The project has been arranged systematically. Besides, students are also asked to show their performance and responsibility of the result of their work. The teacher duty in Project Based Learning is to arrange the project systematically. The planning is done systematically to enable the students to learn about knowledge and skill through the process of searching. Besides, the teachers also have duty to arrange and implement guiding process. Project Based Learning is closely related to Problem Based Learning and we can also say that Project based Learning is the implementation of Problem Based Learning. In Project based Learning, the teaching learning process is focused on the students through research activity. The research activity means finishing specific learning project. This teaching learning process combines science concept, subject, and activity (Maryani and Fatmawati, 2015).

Project Based Learning, when implemented, brings some advantages. First, the students will implement the knowledge they have to the science needed. Besides, the students can integrate their skills simultaneously and implement it in the relevant context. The other advantage is that Project Based Learning can improve critical thinking, growing students’ initiative in working, internal motivation in learning, and developing interpersonal interaction in working group.

On the other hand, Motivation Achievement is a kind of power of individual to do something for the sake of their need. The role of motivation achievement in teaching learning process is as energizer to do something needed. McClelland and Atkinson (1987, p. 78) stated that motivation achievement is a characteristic of someone who has more expectation to succeed than to fail. They, furthermore, stated that motivation achievement is a tendency of someone to lead and defend their behavior to reach achievement standard. Achieving achievement standard is used by the students to evaluate the activity they ever did. Students who want to reach a good achievement will

evaluate whether what they have done is suitable with the criteria determined before.

Furthermore, McClelland and Atkinson (1987, p. 80) stated that motivation achievement is a social value that emphasizes on desire to reach the best result to reach personal satisfaction. The implementation of motivation achievement describes that individual will do something persistently with medium risk, he will work more responsible and get the feedback for the achievement.

As mentioned previously, during its implementation, the students learn to solve problem, and apply the knowledge they have or try to know the knowledge they need. In other words, the learning happens by applying the familiar concept, which will make learning more meaningful. This is the real description that the same process and pattern also happen in the process of mastering Writing. We can say that the use of Project Based Learning theoretically may improve the students writing competence. As it is said by Grant (2002), Project Based Learning is centered on the students reinforce them to investigate topics deeply. Moreover, Johnson (2002) stated that project is defined as a task given to the students so that they can make product as they are expected to produce something real based on the learning material.

In line with the statement, motivation achievement as an internal factor can also push the students to do activities such as writing and the steps. WS. Winkel (1997, p. 197) stated that achievement is a driving force of someone to reach the highest achievement and self-pride. From the statement it can be said that motivation achievement will influence the students to work hard in reaching the best result for making a product in this case writing competence.

Based on the description and the study related to the topic, the writer determines to investigate the phenomenon above in a research with title The Influence of Project Based Learning and Motivation achievement on Improving Writing Ability of the students of SMAN 2 Jember.

Table 1. Randomized subject pretest-post test control group design

| Group | Pretest | Treatment | Posttest |
|-------|----------------|-----------|----------------|
| E | Y ¹ | X | Y ² |
| C | Y ¹ | - | Y ² |

Method

The present research employed experimental research as its design. The design used is randomize subject pretest-posttest control group design. In this case, the subject of research is divided into two groups namely experimental group and control group. Both of them are tested (Ary, 2002, p. 307).

The purpose of the research is to know whether there is influence of Project Based Learning and motivation achievement on the improvement of writing ability before treatment (pre-test) and after treatment (post-test). The treatment given is the implementation of Project Based Learning during teaching learning process of writing. Besides, the role of motivation achievement is also investigated during teaching learning process of writing that uses the Project Based Learning.

The data for the purpose of the study are in the form of information about the students' activities during the teaching learning process, motivation achievement of the students that were collected using questionnaire, and the score of writing after the students were taught using Project Based Learning. The main data source in this research the English Teacher of SMAN 2 Jember, they are respondents of this research. The research area is Public Senior High School 2 Jember that is located in Jl. Jawa 16 Jember. This research was completed in 3 months in 2017.

The population in this research is all the students in class XII SMAN 2 Jember which consists of 2 classes with the total of 55 students. The sample of this research is one of the two classes chosen using Purposive Random Sampling since generally all the classes relatively have the same characteristics since they are taught by the same teacher, having relatively the same age, and using the

same curriculum.

The data analysis is done in four steps, namely; 1) sorting out the collecting data, 2) displaying the data, 3) counting the influence using SPSS program, and 4) making conclusion based the data analysis process.

Results and Discussion

In this research, both of the experimental and control group were given pretest and posttest. The treatment was given to experimental group only by using Project Based Learning and the control group was teaching conventionally. The aim of this treatment was to find out the effect of using Project Based Learning on students writing ability. The raw data was analyzed using SPSS version 21 using double regression analysis.

The research is done in 2 classes namely experimental and control classes. The total number of students in control class are 25 while the number in experimental class are 30. The total sample in this research are 55 students.

Assumption Test

Some assumption tests should be done before doing inferential analysis. The aspects to which we should give attention are multicollinearity, normality, and outlier.

Multicollinearity

Multicollinearity is a situation in which each variable has so high correlation that the contribution of independent variable and dependent variable is overlapping and causes the data bias. A variable is categorized of having high multicollinearity when it has Pearson correlation larger than 0.9 ($r > 0.9$) on its predictors. The following is the table of the correlation between variable.

Table 2. Description of research data

| | Mean | Std. Deviation | N |
|---------------|---------|----------------|----|
| Writing Score | 30.9455 | 16.95246 | 55 |
| Motivation | 63.15 | 4.720 | 55 |
| Group | .55 | .503 | 55 |

From Table 3, it is known that there is no variable having high multicollinearity ($r > 0.9$). From Pearson Correlation column it is seen that motivation achievement has low correlation with score 0.166. from that column it can also be known that giving Project Based Learning does not have relation with motivation on each group. So, it can be concluded that each group has relatively the same motivation ($r > 0.263$).

Normality

Normality can show that the data of the research is normal or not. The normality of data in this research is shown in Figure 1. It is known that the distribution of the data tends to form a straight line from left below to right upper position. Such distribution pattern means that there is no significant deviation from normal, so it can be said that the collected data has fulfilled normality test.

Outlier

Outlier is the case of deviate in which it is so far from normal limit that cause bias on measurement. In regression analysis, outlier can be detected by comparing Mahalanobis Distance and Chi Square critical value using the number of independent variable as the degree of freedom. The number of independent variables in this research are 2, so the critical Chi square value is 13.28 (Pallant, 2007).

In Table 4, we can see that maximum

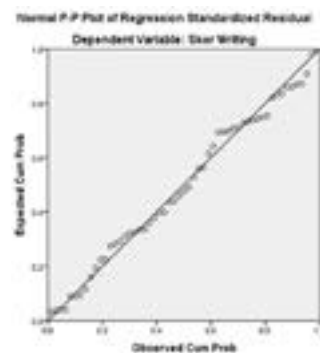


Figure 1. Graphic of Data Normality

Table 3. Correlation between Variables

| | | Writing Score | Motivation | Group |
|---------------------|---------------|---------------|------------|-------|
| Pearson Correlation | Writing Score | 1.000 | .166 | .804 |
| | Motivation | .166 | 1.000 | .263 |
| | Group | .804 | .263 | 1.000 |
| Sig. (1-tailed) | Writing Score | . | .113 | .000 |
| | Motivation | .113 | . | .026 |
| | Group | .000 | .026 | . |
| N | Writing Score | 55 | 55 | 55 |
| | Motivation | 55 | 55 | 55 |
| | Group | 55 | 55 | 55 |

Table 4. Residual Statistics^a

| | Minimum | Maximum | Mean | Std. Deviation | N |
|-----------------------------------|-----------|----------|---------|----------------|----|
| Predicted Value | 14.2164 | 44.3541 | 30.9455 | 13.64452 | 55 |
| Std. Predicted Value | -1.226 | .983 | .000 | 1.000 | 55 |
| Standard Error of Predicted Value | 1.874 | 4.976 | 2.311 | .631 | 55 |
| Adjusted Predicted Value | 14.1520 | 44.6738 | 30.9905 | 13.63472 | 55 |
| Residual | -18.66001 | 31.68706 | .00000 | 10.06047 | 55 |
| Std. Residual | -1.820 | 3.091 | .000 | .981 | 55 |
| Stud. Residual | -1.856 | 3.144 | -.002 | 1.003 | 55 |
| Deleted Residual | -19.39551 | 32.78187 | -.04502 | 10.51004 | 55 |
| Stud. Deleted Residual | -1.902 | 3.459 | .002 | 1.031 | 55 |
| Mahal Distance | .822 | 11.740 | 1.964 | 2.025 | 55 |
| Cook's Distance ^{cec} | .000 | .114 | .015 | .021 | 55 |
| Centered Leverage Value | .015 | .217 | .036 | .038 | 55 |

a. Dependent Variable: Writing Score

score of Mahalanobis Distance shown on the line “Mahal Distance” is 11.740. This score is less than the critical Chi square value. That is

why we can say that there is no outlier in the data because no score of Mahalanobis Distance exceeds the critical Chi square value.

Evaluating Model

To know whether the model hypothesized is really good, we must be sure that the independent variables can predict the dependent variables. Table 5 shows that this model is a good predictor for improving writing ability. Yet, it is also known that the Adjusted R Square score is 0.634, meaning that

the model can predict 63.4% from variance of improving writing ability.

Evaluating Each Individual Variables

In the previous parts, the roles of variables are analyzed wholly as prediction model of Writing ability. In this part, each variable was analyzed one by one.

Based on Table 6, we can see that the implementation of Project Based Learning gives the biggest unique contribution on the improvement of writing ability significantly ($B = 27,535; p < ,05$) when other variances that describe the variable are being controlled. Meanwhile, Motivation Achievement does not give contribution on improving writing ability ($B = -0,174; p > ,05$). In short, the implementation

Table 5. Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1 | .805 | .648 | .634 | 10.25211 |

a. Predictors: (Constant), Group, Motivation

b. Dependent Variable: Writing Score

of Project Based Learning statistically gives unique and significant contribution to the writing ability. The unique

contribution of implementing Project Based Learning is gotten from squared semi-partial correlation coefficient, namely $0.7882 = 0.620$ or 62% of this model.

The objective of this research is to know whether or not there is influence of Project Based Learning and Motivation achievement on improving students' writing ability. Based on the result of data analysis, it is known that the implementation of Project Based Learning can predict the improvement of writing ability of the students, while motivation achievement cannot predict the improvement of writing ability. That is why, the implementation of Project Based Learning can be used as a model of effective ways to improve the Senior High School Students' Writing ability in English.

The finding is suitable with the characteristics of Project Based Learning in which meaningful learning happens. The students that are learning a problem will

apply the knowledge they have or try to seek for the knowledge required. It means that learning is in the context of applying the concept. Learning will be more meaningful and can be enlarged when the students face the situation in which they can implement the concept. Besides, as it is stated in the previous part about the advantages of Project Based Learning, when the students integrate their knowledge and skill simultaneously and apply it in the relevant context, they are doing it in accordance with the real situation and no longer theoretical. Then, they will also find the problem of implementing a concept or theory during teaching learning process. Moreover, Project Based Learning can improve critical thinking, initiative in working, internal motivation to learn, and develop interpersonal relation during working in group. All those aspects can be the force for the students to improve their writing ability since writing activity always needs ability such as thinking critically, full initiative, and thinking about interpersonal correlation with other person in this case the reader. Therefore, it is suggested that English teachers use this technique to improve the students' writing ability.

Related to Motivation Achievement, although logical thinking and some theories support that Motivation Achievement can support the students' appearance and desire to learn, the result of the research give description that Motivation Achievement does not give

Table 6. Coefficient^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | | Correlations | | | Collinearity Statistics | |
|--------------|-----------------------------|------------|---------------------------|-------|------|---------------------------------|-------------|--------------|------------|---------|-------------------------|-----------|
| | B | Std. Error | | | | Beta | Lower Bound | Upper Bound | Zero-order | Partial | Part | Tolerance |
| (Constant) | 26.884 | 19.044 | | 1.412 | .164 | -11.330 | 65.098 | | | | | |
| 1 Motivation | -.174 | .306 | -.048 | -.566 | .574 | -.788 | .441 | .166 | -.078 | -.047 | .931 | 1.074 |
| Group | 27.535 | 2.877 | .816 | 9.570 | .000 | 21.761 | 33.308 | .804 | .799 | .788 | .931 | 1.074 |

a. Dependent Variable: Writing Score

contribution on the improvement of the students' writing ability ($B = -0,174$; $p > ,05$). This fact shows that Motivation Achievement is not an effective contributor to improve the students writing ability. Although motivation achievement by definition is a tendency to reach a success that involve ego and great expectation (Chaplin, 2005), one's ability to write may not depend on the condition of motivation to write. Yet, it depends more on his talent or his natural skill, so merely having high courage or motivation does not guarantee a high quality product of writing.

Conclusions

Based on the result of data analysis and discussion, we can conclude that there is influence of Project Based Learning on the improvement of writing ability of the students' class XI science class SMAN 2 Jember in academic year 2016/2017. Furthermore, there is no influence of motivation achievement on the improvement of writing ability of the students' class XI science class SMAN 2 Jember in academic year 2016/2017.

References

Ary, D. Lucy C. J. and Asghar R. (2002). *Introduction to Research in Education. Belmont*. Wadsworth Thomson Learning.

Ashman, A. F and Conway, R. N.F. (1997). *An Introduction to Cognitive Education: Theory and Application*. London: Routledge

Atkinson, J. & Raynor, J. (1978). *Personality, motivation & achievement*. New York : Halstead Press, John Willey & Sons.

Chaplin, J.P. (2005). *Kamus Lengkap Psikologi*. Terjemahan Kartini Kartono. Jakarta: Raja Grafindo.

Depdikbud. (2016). Permen_tahun 2016_nomor 22. Kemdikbud; Jakarta

Dewey, J. (1933). *How We Think: A Restatement*

of the Relation of Reflective Thinking to the Educative Process, (rev. ed.) Boston, MA: D.C. Heath.

Grant, M. (2002). Getting a grip on Project-based Learning: Theory, Cases and Recommendations. *Meridian: A Middle School Computer Technologies Journal* 5(1) Winter.

Hughey, R. 1983. *Spoken English, TESOL and Applied Linguistics: Challenges for Theory and Practice*. New York: University of Nottingham

Johnson, D. W., & Johnson, R. T. (2002). *Meaningful Assessment*. Boston: Allyn and Bacon.

Kirschner, P.A.; Sweller, J.; Clark, R.E. (2016). Why Minimal Guidance during Instruction Does Not Work: An Analysis of the Failure of Constructivist, Discovery, Problem-based, Experiential, and Inquiry-based Teaching. *Educational Psychologist* 41 (2): 75–86.

Maryani, I and Fatmawati, L. (2015). *Pendekatan Scientific dalam Pembelajaran di Sekolah Dasar: Teori dan Praktik*. Yogyakarta: Dee publisher

McClelland, D. C. (1987). *Human Motivation*. New York : Cambridge, University

Nursalam and Efendi, F. (2008). *Pendidikan dalam Keperawatan*. Surabaya: Salemba Medika.

Pallant, J. (2007). *SPSS Survival Manual*. McGraw-Hill.

Pearsonhighered.com. Teaching for Success: Methods and Models. [online] tersedia: <http://www.pearsonhighered.com/samplechapter/0131149903.pdf> ddiakses 24-10-2014

Richards, J. and Renandya, W. 2002. *Methodology in Language Teaching: An Anthology of Current Practice*. New York: Cambridge University Press

Sumarni. 2012. *Model Model Pembelajaran*

Geografi. Malang; Aditya Media
Publishing

Wallace, S, H. 2004. *Teaching Speaking, Listening
and Writing*. Switzerland: Geneva

Winkel, WS. (1997). *Psikologi Pengajaran*.
Yogyakarta; Media Abadi