THE IMPLEMENTATION OF PROJECT-BASED LEARNING IN TEACHING WRITING OF FACTUAL REPORT TEXTS

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Abstract: The current research was aimed to explore the effects of Project-Based Learning (PjBL) implementation on students' responses and writing achievement. The participants of the research were 28 students of year 9. The data took the form of qualitative and quantitative. The qualitative data were students' recorded responses in the forms of utterances on each stages of the PjBL implementation, while the quantitative data were students writing score of pre-test and post-test. The data of the students" responses were collected through interview and they were video-taped, while data of students' writing scores were gained by administering writing test. The research instruments used among them were writing test, smart phones as audio-visual gadget to record the proccess, and an interview protocol.The findings show that students responded positively to the all stages of PjBL implementation and there was a significant increase of students' writing improvement in the aspects of content, organization, grammar, vocabulary, mechanics, and length of writing.

Keywords: Project-based Learning, Factual Report Text, Writing Aspects, Interview Protocol.

Abstrak: Penelitian ini bertujuan untuk menggali efek penerapan pembelajaran berbasis proyek melalui tanggapan siswa terhadap setiap tahapan pembelajaran dan bagaimana peningkatan kemampuan menulisnya. Peserta penelitian ini adalah 29 orang siswa kelas 9. Terdapat dua jenis data yang diambil yaitu data kualitatif dan data kuantitatif. Data kualitatif adalah rekaman dari tanggapan siswa terhadap setiap tahapan dari penerapan pembelajaran berbasis proyek, sedangkan data kuantitatifnya adalah nilai kemampuan menulis pada pre-tes dan pos-tes yang diperoleh siswa. Untuk memperoleh data, peneliti melakukan rekaman audio-visual seluruh langkah kegiatan saat penerapan pembelajaran berbasis proyek dan melakukan pre-tes dan pos-tes menulis. Instrumen pengumpul data yang digunakan adalah tes menulis, telepon pintar untuk merekam proses, dan borang wawancara. Temuan yang diperoleh menunjukan bahwa para siswa memberikan tanggapan positif terhadap penerapan semua langkah pembelajaran berbasis proyek yang dilakukan dan adanya peningkatan nilai menulis yang signifikan pada aspek isi, organisasi, tata bahasa, kosa kata, mekanis, dan panjang tulisan.

Kata kunci: Pembelajaran berbasis proyek, teks paparan faktual, aspek tulisan, *interview protocol*.

INTRODUCTION

This research relates with the 2013 curriculum applied recently in formal schools in Indonesia. This curriculun suggests that teachers apply discovery and inquiry-based learning. Inquiry-based learning is a research-based strategy that actively involves students in the exploration of the content, issues, and questions surrounding a curricular area or concept (Lane: 2007). Inquiry is described as a seeking for truth, information or knowledge-seeking information by questioning (Colwell: 2002). This means students do research on a topic that is generated through a series of questions.Next, (Lee: 2014) diclares that inquiry learning previously was mostly used in Math and Science but its mechanism is well-suited L2 learning.

Inquiry learning can be carried out through doing class project. Project-based learning hails from a tradition of pedagogy which asserts that students learn best by experiencing and solving real-world problems (Vega:2015). Although Project-based learning is recommended in 2013 curriculum, only a very limited information and training about it has been dessiminated to teachers. As a result many teachers remain to stay in the dark, thinking that project is similar to assigning students to work in group doing a given task. When the students are through with the task, they submit it and then the teacher will give the score based on the result. So, it is quite obvious that most teachers need more information about what project-based learning exactly is and how to apply it in Indonesia's new national curriculum.

There are three approaches to inquiry-based learning: project-based learning, problem-based learning, and design-based instruction (Friesen and Scott : 2013). Thus, it is obvious that project-based learning is one of the ways to implement inquiry learning. In project-based learning, learners engage inquiry by developing questions that guide their research. What the learners discover is shared with a select audience

through a project presentation (Bell : 2010). Further more, (Moss & Duzer : 1998) explains that Project-based learning is an instructional approach that contextualizes learning by presenting learners with problems or issues to solve or products to develop. Project-based learning strategies involve students in exploring authentic problems. Solving real-world problems motivates students. Thus, one of the primary benefits is increasing student interest and valuing of learning. It's fun to get creative when designing a project, instead of just using "off the shelf" curriculum materials (Larmer: 2015). Project-based learning focus is on developing a reseach or artifact that serves as evidence of the learning process. Project-based learning activities provide opportunities for students to develop materials that show evidence of their engagement with issues raised in the course and, more practically, that may be adapted for their own courses in the future.

Project-based learning can be defined that students do a series of activities of designing, planning, and carrying out an extended project that produces a publicly-exhibited output such as a product, publication, or presentation. The implementation of project work differs greatly from one instructional setting to another (Dewi : 2016). Projects could last anything from a week to a whole semester, but should grant students independence to create an authentic final product, requiring them to explore a subject in a deep sense throughout the production. Projects are designed to build knowledge and develop skills, to incorporate language learning and inter-cultural understanding and to connect learning to the real-world.Students learn best when learning connects strongly with communities and practice beyond the classroom. Learning is about developing competencies for life and using language to learn to think and to express oneself (Gutierrest: 2016). Students learn best when they are

actively involved in the process (Davis: 1993 ; Gaer 1998).

Learning practices in English language classrooms across Indonesi have long focused on the teacher-centred approach to learning, that is, teachers as the main subject who deliver the lesson while students as the listeners. In this approach, teachers usualy stand in front of the class telling what to do with the workbooks and telling them the answers of the questions (Murtiningsih: 2016). Many teachers often think that teaching writing is primarily teaching of sentence construction, appropriateness use of tenses and punctuation. Teachers often attempt to improve students' writing by performing grammar correction towards students' writing and ask students to translate sentences from L1 into English. To make the teaching of writing becomes effective, students need to have the right attitudes, personal motivation, and perception on writing lesson. On the other hand, external factor such as activities provided by the teacher and peer collaboration can be influental too. Therefore, there is a shifting of recent view of teaching writing indicating that learning to write is not only a passive reception but also an active creation. To learn how to create a good piece of writing, peer or collaborative activities is neded to promote the process. Learning in collaborative setting is a social interaction involving a community of learners and teachers, where members acquire and share experience or knowledge (Suwantarathip: 2014).

When implementing PjBL, a high level of students' engagement is reached. The students' engagement is realated with the increase of participation, willingness to do assignments, and motivation to learn. Assaf (2018) argues that Project-Based Learning is intrinsically

motivating and this makes students work harder and be more willing to do extra challenging tasks while working on their projects. In line with the background, the researcher defines the research questions as the following:

1) What are the students' responses on the implementation of Project-Based Learning to teach writing of factual report text?
2) Does implementation of Project-Based Learning improve students' factual report text writing performance?

Related with the second Research Question, the researcher proposes the hypothesis:

1) Hypothesis 0: there is no difference between the mean of pre-test and the mean of post-test.
2) Hypothesis 1: there is a difference between the mean of pre-test and the mean of post-test.

METHODS

This research design is both quantitative and qualitative. The quantitative data was taken through pre-test and post-test. The pre-test and post-test was done to take result of students' essay writing in terms of organization, content, grammar, vocabulary, mechanics, and length. The qualitative data were taken through the transcriptions of students' responses on the implementation of Project-Based Learning (PjBL) to teach report text writing. To collect the data quantitatively, the researcher took students' score of writing through a pre-test and post-test. The data of students' writing achievement consisted of scores in writing content, text organization, accuracy of the sentences, use of vocabulary, mechanical writing and length of writing. Triangulation of time and inter-raters were applied to get the validity. Before administering post-test, the researcher taught the students by implementing PjBL. There were 6 stages of teaching writing through PjBl applied in this research. The stages were as the following: (1.)Text observation, (2.)

Project planning, (3.) Data collecting, (4.) Text writing, (5.) Text presentation, and (6.) Text publication.

All of the project stages were video-taped. To collect quantitative data of students' responses, interview technique was administered. Each student as participants of the research was interviewed in different time personally. The questions in the interview protocol were open for students to give different answer. Before being interviewed, the student was asked to whatch the video of the learning stages. Students' responses were recorded, transcribed and confirmed later.

RESULTS AND DISCUSSION

RESULTS

The qualitatif data were gained by trancribing students' recorded responses. The responses were categorized based on their similariry of statement. To make it clear the researcher would like to present the responses in form of tables and students' excerpts.

Table 1: Students' Responses on Stages of PjBL Implementation

Category	Response	Respondent	Percentage
1. Observation Stage			
Examples of factual report texts	The three examples of text could provide general understanding about what a report text is like.	28	100 %
Observation sheet	Working on the observation sheet could help students recognize the social function, text structure, and linguistics features of a report text	28	100 %
Presenting result of observation	The sharing of observation result by each group made students draw similar ideas and perception about a report text	8	29 %
2. Planning Stage			
Member participation	All group members participated in planning stage	28	100 %

	All group members participated but few did not contribute ideas	3	11 %
Result of planning stage	Each group was successful in making a project plan and data collecting instrument	28	100 %
3. Data collecting stage			
Implementation of data collecting instruments	The prepared data collecting instrument was effective to gather information	28	100 %
Positive view	Students learned and got useful experience on how to collect data through interviewing people	28	100 %
Negative view	Doing interview obviously interrupting people in doing their job, not all group members acted as interviewer, limited sources of information source	11	39 %
4. Text writing stage			
Participation in collaborative writing	Students worked in group to process the gained data and compose a factual report text	26	93 %
Constraints in text writing	Students found difficulties in writing good sentences by utilizing information in their list.	26	93 %
	The information from data collecting stage was not enough so students had to find it through internet	6	21 %
5. Presentation stage			
Constraints in preparation	There was problem in deviding responsibilities	6	21 %
	There was problem in preparing content of presentation	12	43 %
6. Publication stage			
Revision procedure	The group did revision together and considered shared inputs	27	93 %
Personal reaction	Students felt happy and proud to see their final work was displayed	28	100 %

The students respondedpositively to the observation stage.The whole students (100 %) responded positively to these activities saying that the three examples of the factual report texts could give them general

idea about what a report text is like. The grid to be completed in observation was useful to guide them understand the social purpose, text structure, and language features of the report texts. Share result of observation accross the groups in the last activity of observation stage was also considered important for the students to have similar understanding about the text convention. Here are the excerpts of students' response related with observation stage:

"The three example of texts being observed were useful for us because by observing those text we could have general knowledge, including the text structure and feature, before we could make one (Hanifa Febrianti)."

"The observation grid could help us in understanding the text structure and language features in the sample texts (M. Dito A.)

"The functio of presenting the result of our text observation was to share our information and ideas to other groups and to get nputs from other groups so we got complete information (Ahmad Fauzan)."

In case of the planning stage, students, taken randomly, commented as follows:

"All group members were involved in planning the project. No one was egoistic.
Every of us in the group played a certain role in planning the project (Azaria Nabila)."

"We made crucial questions to get data in our interview in the hope we would get
enough information when writing a report text later (M. Aqiel)."

"Our group was successful in making a data collecting instrument (Denisa M.)."

About the activities of information searching through interviewing people, students responded by saying as the following:

"With the good preparation of data collecting instrument, the process of collecting information could run well (Desta Bulan)."

"The positive side of data collecting activity was that we could learn how to interview
people to gain information before writing a report text. The negative point was there
were too few sources to be interviewed so we got limited data to compose the report
text (Deva Anjani)."

When being asked about the text writing stage, students responded by giving the following statements:

"First, we combined all of the data/information we have gained. Then, we started writing a report text by considering the text structure and using the information that we have collected (Deva Anjani)."

"The difficulty we faced was when we had to choose which information to tell in
our text since we had different information from different sources and we only
collected data from one place so the data were specific not general (M. Lefrand)."

There were excerpts of students' response about the activities of text presentation: The folowing two excerpts were chosen as examples.

"I think my group had been able to make a good presentation since we

could present information in a report text (Mirza Sultan)."
"When there was a group making a presentation, we had a chance to give ideas for that group and we also might commented on the pluses and minuses of their work so the group would be able to revise their report text (Nabila Amir)."

To strengthen this finding, the two of students' responses on the publication stage were attached.

"Before handing our final product of report text writing, we got advices from other groups during our presentation. We discussed their inputs in our group to improve our text. We tried to apply good advices (Nathania F.)."

"We felt so proud because our tough effort and work was put on a display board to exhibited for others so other students could widen their horizon (Putri Febi)."

Both writing pre-test and post-test used the same writing test instrument and were done with the same procedure. Each participant was free to choose a topic to write from the five given choices of topics. The findings of the research are presented as the following:

Table 2. The Pre-test and Post-test Statistical Computation

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	POSTTESTwriting	85.5286	28	4.22767	.79896
	PRETESTwriting	78.8357	28	5.01023	.94684

Paired Samples Test

		Paired Differences					t	df	Sig.(2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	POSTTEST writing – PRETEST writing	6.6929	3.560	.6729	5.3123	8.0735	.947	27	.00

The calculation of paired sample statistics above approves that there there was a different of pre-test and post-test result. This can be seen from the difference of both means, where the mean of pre-test is 78.8357 and the mean of post-test is 85.5286. It indicates there was an increase of score from pre-test to post-test. While the table of pired sample statistics shows that the increase of students' score from pre-test to post-test is significant because sig.2-tailed 0.00 is lower than hypothesis significance 0.05.

Since there were 5 aspects of writing being investigated (content, organization, grammar, vocabulary, and mechanics), it is neccessary to see whether through the PjBL implementation there is a significant difference of writing achievement and whether there is a signifant improvement in each of the writing aspects.

Table 3. Statistical Computation of the Writing Aspects

Paired Samples Statistics of the writing aspects

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Content2	82.4286	28	6.99962	1.32280
	Content1	74.0714	28	9.69891	1.83292
Pair 2	Organization2	81.8571	28	7.30152	1.37986
	Organization1	72.8571	28	9.51301	1.79779
Pair 3	Grammar2	86.0714	28	4.47154	.84504
	Grammar1	80.5714	28	5.95930	1.12620
Pair 4	Vocabulary2	87.1429	28	4.08896	.77274
	Vocabulary1	81.7143	28	4.17095	.78824
Pair 5	Mechanic2	90.1429	28	4.07080	.76931
	Mechanic1	85.2857	28	3.70042	.69931

Paired Samples Test

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Content2 – Content1	8.357	8.00099	1.51205	5.254	11.45960	5.527	27	.000
Pair 2	Organization2 – Organization1	9.000	7.45356	1.40859	6.109	11.89019	6.389	27	.000
Pair 3	Grammar2 – Grammar1	5.500	4.30762	.81406	3.829	7.17032	6.756	27	.000
Pair 4	Vocabulary2 – Vocabulary1	5.429	3.56348	.67344	4.047	6.81035	8.061	27	.000
Pair 5	Mechanics2 – Mechanics1	4.857	3.37435	.63769	3.549	6.16558	7.617	27	.000

As a matter of fact, the paired sample statistics shows that the mean score result of each writing aspects were different significantly from pre-test to post-test. While the paired statistics proves that there were significant increase in the five aspects of writing since the 2-tailed values are below 0.05.

In the case of length of writing, the researcher found that there was an increase of the number of the vocabularies used by students. Students used 197 words in the average of pre-test. Meanwhile, in post test the average of vocabularies used by students was 289. So, there was a difference of 92 words as the increase.

DISCUSSION

The research findings show that students' responded positively towards every step in the implementation of PjBL to teach factual report text writing. This is in line with the research carried out by Putra (2014) who compares the effectiveness of PjBL with Collaborative writing in teaching essay writing. He found that students gave positive responses to the application of PjBL. This finding is also in favor with the research of Syarifah (2019) who applies PjBL in

story writing. She also found that her students responded positively towards the application of PjBL. The positive responses might be caused by some factors such as PjBL is learner centered, encourages collaboration and cooperative learning, requires students to produce a product and presentation/ performance, allows students to make continual improvements in their product or performance, is designed so that students are actively engaged in doing things rather than in learning about things, and focusing on high-order of thinking skills.

First, PjBL is learner-centered. PjBL is rooted from inquiry-based learning which lays special emphasis on the core concepts of cognitive and discovery learning and its goal to develop higher-order thinking (Lee: 2014). Different from expository teaching in which teachers expose all of the information, in inquiry based learning the teachers do not teach everything directly or explicitly. In this case learners are expected to discover knowledge to generate rules based on series of activities. This makes the course of learning becomes learner-centered. Project-based Learning is student-driven, teacher facilitated approach to learning (Bell: 2010).

Second, PjBL encourages collaboration and cooperative learning. In doing a class project, students are often have to work in group dynamic and so they learn to cooperate and interact with other people in doing their task. In a team students make a plan for their project, design a data collecting technique and instruments, analize the data, and prepare a project report and presentation. All of these activities cannot be done without collaborating with other people. So it is obvious that the implementation of PjBL can promote students' life skill to be able to work in a team. Mahmoud (2014: 621) states that students were impressed and happy because of the supportive environment provided through working with peers in a group.

Third, PjBl requires students to make a product or performance. Unlike in

expository teaching, learning through project-based learning doesn't require students to memorize anything. Instead, they learn to understand patterns of a certain rule through activities planned by students themselves. They focused on producing a piece of work or on performing a certain task. Hence, Felder (1999:1) explaines that people acquire knowledge and develop skill only through repeated practice and feedback, not by watching and listening to someone else showing and telling them what to do.

Fourth, PjBL allows students to make continual improvements in their product or performance. In producing an end-product or performance, there are several steps to be through. Students have chances to interact with others to show their project plan, gain more data, discuss with peers, present their work, and get inputs from others. In this way students are doing an active learning. Through active learning activities, students gain important experiences and knowledge which are meaningful. Students become more productive in learning by doing.

Fifth, PjBL is designed to make students active in doing things, not to learn about something. In PjBl students are learning by experiencing. Experiential learning is related to the project method (Fragoulis, 2009). Experiential learning is the organization of learning process based on principles of 'learning by doing' by exploitation of activities aiming not only to acquire knowledge but also to transform the way of thinking and to change attitudes.

Finally, PjBL is focusing on high-Order of thinking skill. Teachers can create real-world solving situations by designing questions and tasks that correspond to frameworks of inquiry-based teaching, project-based learning, which involves a complex task and some form of student presentation, and/or creating an actual product or artifact (Vega: 2012). Students responded positively during the application of PjBL because they were fully involved in the process since the very beginning.

Engagement is the key: we must seek subjects, issues, and projects that are relevant to our students, so that they can find meaning and power in practicing and improving academic and cognitive skills.

To explain factors which made students' writing post-test scores outnumber students' writing pre-test scores, the researcher identified that the writing pre-test was carried out before students learned the intricacy of report text. On the other hand, writing post-test was administered after students learned how to write a report text through the application of PjBL. It was quite logical to conclude that the difference of both score was triggered by the PjBL treatment. It indicated that that the treatment of implementation of PjBL could improve the students' performance in writing a report text. This fact leads the researcher to come into conclusion related with the second research question that the implementation of Project-Based Learning could improve students' ability in writing an essay of factual report text.

CONCLUSION AND SUGGESSTIONS

Based on the result of the research findings and discussion as well as the related literature study, the researcher concluded this research that students responded the implementation of Project-Based Learning to teach how to write a factual text report positively. To implement Project-Based Learning for teaching writing, sequential steps of text observation, planning of activities and instruments, searching for information, writing the text, editing, and publishing were proven to be effective, helpful, and improve students' ownership in learning. Implementation of PjBL could improve students' writing in term of content, organization, grammar, vocabulary, mechanics, and length of writing.

To provide a better look the research, the writer would like to point out the limitation of the research. First, research was embedded in time. It took longer time than what was planned. To locate the source of the problem, the researcher confirmed

each of the group leader. The responses could be classified into two. The first was because most of the students were not familiar yet with the stages of PjBL being applied. The second limitation of this research was the interview to collect qualitative data of students' responses to each stage of PjBL implementation. In practice the researcher could not apply the interview protocol fully since there was a constraint related with time.

It is necessary that teacher consider time allotted for applying PjBL since it usually becomes constraint. When a project activity is carried out off the classroom, teacher had better develop technique to control the students' activity. It would be preferable considering to interview only two interviewees as the representative of each group when a qualitative interviewing is going to be used to collect data. Taking interview, transcribing responses, making confirmation of students'responses, and classifying the responses are very time consuming activities. Further research related with PjBL and writing is possible in terms of various kinds of text and language skills or sub-skills, students' perception, and autonomous learning.

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