

EFFECTS OF PROJECT-BASED LEARNING METHOD TO THE REPORT-WRITING SKILLS OF MAJOR IN ENGLISH STUDENTS

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Abstract:

The study focused on the effectiveness of the application of project-based learning method in enhancing the report-writing skills of English major students. It employed non-equivalent pretest-posttest control group experimental design. The results showed that the project-based learning method and the lecture method were not equal. Based on the findings, there was a significant difference between the mean gain scores in the pretest-posttest performances of the experimental group and control group. The experimental group performed far better than the control group which showed that the PBL method was better than the use of the traditional lecture method.

Thus, language teachers should employ methods in a language class that would develop appropriate skills of students. They need to be innovative, creative or resourceful, should orient learners on the purpose of project tasks and should set clear, measurable, valid objectives in implementing such work in the classroom.

Key Words: *project-based learning method, lecture (traditional) method, report-writing skills, writing skills*

Introduction

The world's educational trend today has been changing significantly due to the implementation of the 'so-called' varying dynamic teaching strategies. But the fundamental purpose of education has never changed, that is, to produce efficient, functional and competent individuals. Because of this, the whole educational system should be involved, from the policy makers down to the educators, in providing avenues for quality and uncompromised education required by a work environment.

Presently, the work environment has needed responsibility, self-management, interpersonal and project-management skills plus teamwork and leadership. To match requirements, the ability to express oneself in writing would be of great importance. According to McDonough and Shaw (1993), incompetence in writing such as sentence structure, spelling, organization and grammatical usage, has hindered the success of communication and has hampered the continuity of thought, an ability that both international and local markets demand from a workforce. This would mean a call for acquisition of 'new skills' such as the ability to work as a team, to find and select relevant information, to coordinate with others one's efforts, to network with people thinking and acting ideas in order to produce a comprehensive written

output (Project-based Learning Handbook, 2002). Hence, students should be trained for professional practice to meet the challenges ahead of them. This would be tantamount to saying that teaching methods or strategies should involve more than teacher talk or the usual lecture type technique of teaching.

To be able to perform tasks functionally, one should be literate and equipped with appropriate skills. Though such endeavor has been realized, the actuality in a classroom setting should still be attended to. Gervacio (2002), citing Beyer in 1997 and Andas (1999) pointed out that passivity in many classrooms, has been an outcome of much teacher talk, less student activity, less teacher-student interaction, and the strategies used by teachers that hardly provided opportunities for creative and critical thinking. In fact, one of the most important skills that students should develop and which has been overlooked was writing.

The Department of Education issued the Memorandum No. 140 last April 2006 that stressed the importance of mastering reading and writing skills for successful learning at the secondary level. Learning to write has been a mounting problem for most students. Based on a research, creating a good piece of writing was treated as an extremely difficult skill even in one's native language (Nunan in 1999, English Teaching Forum Online). With the present state of the Philippine educational system and that of other countries, apparently, there seemed to be a pressing need to redirect and reassess existing teaching or learning strategies so as to attend and blend with future career demands and world-of-employment tasks that involve skills beyond theories. This was one reason that various teaching methods, strategies, and techniques have thrived in the Philippine language education tremendously.

However, it could be observed in the educational arena today that there have been teachers who required their students to do projects without explaining to the latter the main purpose and the manner how their work would be assessed. This only showed the teacher's lack of preparation and planning (McKenzie, 2000). On the other hand, if a project was well planned, it could motivate students to write since it gives them a chance to equate work with interesting topics that were relevant to them. The implementation of project works would vary greatly from one instructional setting to another. Yet, a clear picture and understanding of projects should be sustained. In some settings, for example, fairly non-elaborated tasks confined to a single class session were considered as projects (Mercer, 2005 in English Teaching Forum). Because of this condition, it was alarming yet not surprising that students produced copied and second-rated written works. This only showed that there was a somewhat incorrect perception on how to implement projects as bases for enhancing skills in writing.

Method

This study employed the non-equivalent pretest-posttest control group Experimental Design. In this design, subjects of the study were assigned to treatment groups, namely: the Experimental group and Control group. This study involved the two (2) sections from the

Bachelor of Arts in English freshmen enrolled in English 2 subject at the University of Southeastern Philippines. The researcher determined the control and experimental groups through a drawing of lots. The researcher considered the two sections since they shared common factors such as field of discipline, year level, college unit, and subject teacher. The experimental group was taught report-writing using the project-based learning method, while the control group was taught the same using the lecture method. This study employed the following instruments: (a) research-made report writing pretest-posttest; and (b) lesson designs for the experimental group and control group. Research instruments were subjected to content validation and reliability test to ensure the aptness on the items and lessons, relevance, the precision of grammar, clarity of language and directions, and format.

To determine the level of report writing skills of the respondents of this study, the mean was utilized while t-test for independent samples was used to determine which method was more effective in improving the report-writing skills of the student-respondents.

Results and Discussion

The profile of the pretest and posttest performance of the experimental group is shown in Table 1. As reflected in the pretest, the highest score is 52 and the lowest is 13. Of the thirty-five students in the experimental group, nobody got scores ranging from 58-76. This shows that no one demonstrated a substantial content and original writing or creative expression in writing. It further shows that nobody demonstrated rich details and a strong command of language and of writing conventions. On the other hand, there were 15 students or 42.86 percent who got scores ranging from 39-57. This means average achievement level in the pretest. This signifies some competence in writing but has more weaknesses than strengths. This shows, in general, the inadequacy of details or examples and or less proficiency in vocabulary and expression. Thus, it suggests problems with writing conventions.

However, there were 18 students or 51.43 percent that had below average level of achievement in their pretest with scores ranging from 20-38. This achievement level suggests that they had failed to demonstrate competence in most of the criteria considered in the report writing test. Their vocabulary is limited, dull, predictable, underdeveloped, vague, superficial or seriously weakened by errors in writing conventions. Two students or 5.71 percent, in addition, had a very low achievement in their pretest with scores ranging from 0-19. This poor performance of students indicates unscorable output because they are illegible or do not deal with the given topic.

In the posttest, the highest score is 74 and the lowest score is 34. Of these thirty-five students who served as the experimental group, 26 students or 74.29 percent got scores ranging from 58-76. This shows very good achievement level. These students manifested a very good learning in the posttest. They demonstrated competence in most of the writing criteria. They performed a solid and interesting writing ability. They have more strengths than weaknesses and

are more specific than general. They have suggested proficiency in writing which is shown in using a generally good command of language and conventions as well. On the other hand, seven students or 20 percent had achieved an average level of performance in their posttest which indicates a state of mediocrity in learning. This means that these students have some competence in writing but have more weaknesses than strengths. In general, their products lack details or examples and/or perform less proficiency in vocabulary and expression which is reflected in their problems in writing conventions. These students got 39-57 correct answers in the test which means they passed the test.

However, as reflected in Table 1, two students or 5.71 percent got scores ranging 20-38 which means a failure to demonstrate competence in writing. A limited, dull, predictable, underdeveloped, vague and superficial vocabulary contributes to this failure which is also influenced by errors in writing conventions. All in all, nobody got scores ranging from 0-19 which indicates a very poor level of performance in the posttest or an illegible product in writing.

Table 1:
Pretest and posttest of experimental Group

Score Interval	Achievement Level	Pretest Performance		Posttest Performance	
		<i>f</i>	%	<i>f</i>	%
77-95	Excellent	0	0	0	0
58-76	Good	0	0	26	74.29
39-57	Average	15	42.86	7	20
20-38	Below Average	18	51.43	2	5.71
0-19	Poor	2	5.71	0	0
Total		35	100	35	100

As reflected in Table 2, the highest score is 55 and the lowest score in the pretest is 16. Of the thirty-seven students used in the control group, nobody got scores ranging from 58-76 and 77-95. This manifests that nobody demonstrated a substantial content and original writing or creative expression in writing. It also shows that no one demonstrated rich details and a strong command of language and of writing conventions. However, 17 students or 45.95 percent obtained scores ranging from 58-76. This means average achievement level in their pretest. This also reveals some competence in their writing but has more weaknesses than strengths. Generally, this means inadequacy of details or examples and/or less proficiency in vocabulary and expression. Though this performance indicates that the students passed in the test, still this suggests problems with writing conventions. Moreover, 18 students or 48.65 percent got below average level of achievement in their pretest. Their scores which range from 20-38 denotes that they demonstrated incompetence in most of the rating criteria such as vocabulary which is characterized as limited, dull, predictable, underdeveloped, vague superficial or seriously weakened by errors in writing conventions. However, two students or 5.40 percent had a very low achievement in their pretest with scores ranging from 0-19. This only shows that these

students performed an unscorable product because they are illegible or do not deal with the given topic.

In the posttest, the highest score is 69 and the lowest score is 37. Of the thirty-seven students who belonged to the control group, nobody got scores ranging from 77-95. This shows that nobody from the control group performed exceptional learning in the posttest. This shows that nobody demonstrated a substantial content and original writing or creative expression in writing. It further shows that no one demonstrated rich details and a strong command of the language and of writing conventions. On the other hand, five students or 13.51 percent got scores from 58-76. This means high achievement level in their posttest. They demonstrated competence in most of the writing criteria and performed a solid and interesting writing ability. They perform more strengths than weaknesses and are more specific than general. Their achievement suggested proficiency in writing which is shown in using a generally good command of the language and conventions as well. This further shows very good learning of a student who obtained 58-76 correct answers of the test. Moreover, 31 students or 83.78 percent had an average level of performance in their posttest. These students with scores ranging from 39-57 had average performance that signifies common learning. This also means that these students have some competence in writing but have more weaknesses than strengths. Moreover, their products lack details or examples and or they perform less proficiency in vocabulary and expression which is reflected in their problems in writing conventions. These students who obtained a score within the mentioned range passed the test.

However, one student or 2.70 percent had a low achievement in his posttest with a score of 37, which belongs to the scores ranging from 20-38. This signifies a failure to demonstrate competence in writing. The vocabulary is limited, dull, predictable, underdeveloped, vague and superficial which contributes to this failure. Still, no one got scores ranging from 0-19 which means unscorable performance in writing. As indicated, only one failed in the posttest. This shows that only one performed an unscorable writing.

Table 2:
Pretest and posttest of control group

Score Interval	Achievement Level	Pretest Performance		Posttest Performance	
		<i>f</i>	%	<i>f</i>	%
77-95	Excellent	0	0	0	0
58-76	Good	0	0	5	13.51
39-57	Average	17	45.95	31	83.78
20-38	Below Average	18	48.65	1	2.70
0-19	Poor	2	5.71	0	0
Total		37	100	37	100

Shown in Table 3 are the results of the t-test testing the significant difference between the pretest and posttest scores of the experimental group in report-writing. As depicted in the table, the t-value is -21.93; it means that at 0.05 level of significance, there is a significant difference between the pretest and posttest performance of the English freshmen in report writing in the control and experimental groups. This result shows that the employed method, the PBL method, was effective in enhancing their report writing skills, encompassing compositional organization and the mechanics of writing. The effect of the method is possible since they were allowed to choose their topic which reflected what is essential in their lives (Arends, 1998). Since skills in report writing could not just be developed overnight; thus, the constant practice would help increase writing ability.

This is also confirmed by Arends (1998) who stressed that project works could assist students to become active, involved participants in writing tasks, hence motivate for the learning of writing. Moreover, Brown (1994) emphasized the point of giving students the chance to choose writing topics which are a reflection of real, meaningful, and communicative product in the best sense of the term. Usually, writing is a skill that people do individually. However, peer collaboration and group work could be extremely stimulating for students especially when they have the freedom to express themselves.

Table 3:
Pretest and posttest performance scores of the experimental group

Mean		t-value
Pretest	Posttest	
36.17	60.43	-21.93*

* Significant at 0.05 level of significance

Reflected in Table 4 are the results of the t-test testing the significant difference between the pretest and posttest scores of the control group in report-writing. As revealed in the table, the t-value is -11.08. Considering this result, the null hypothesis is rejected. This means that there is a significant difference in the pretest and posttest performance of the control group. This shows that after the learners in the control group were exposed to lecture method, one of the traditional methods, their report writing skills had been significantly enhanced. This signifies that the lecture method used in teaching the writing subject was effective in the development of their skills in report writing.

Lectures are excellent for transmitting large amounts of information but a poor place to present intricately detailed or complex information. Lectures also generally are not effective in teaching application of information, in developing problem-solving skills or in changing attitudes (Davis, 1979). Students may do well in a lecture and could become consciously competent; nevertheless, presenting information could be done using any methods other than lecture.

Table 4:
Pretest and posttest performance scores of the control group

Mean		t-value
Pretest	Posttest	
37.38	49.35	-11.08*

* Significant at 0.05 level of significance

Shown in Table 5 are the results of the t-test testing the significant difference between the pretest performance scores in report writing of the experimental group and control group. As reflected in the table, the t – value is -0.56. This indicates that there is no significant difference in the pretest performance in report writing of the major in English freshmen in both experimental and control groups before the experiment started which means that the two groups are comparable. Even though, the control group showed higher score compared to the experimental group.

Table 5:
Pretest Performance Scores of the Experimental Group and Control Group

Group	Mean	t-value
Control Group	37.38	-0.56 ^{NS}
Experimental Group	36.17	

NS – Not Significant at 0.05 level of significance

Shown in Table 6 are the results of the t-test testing the significant difference between the posttest performance scores in report writing of the experimental and control groups. Based on the findings, the t-value is 5.54 tested at 0.05 level of significance; it could be concluded that there is a significant difference between the posttest performances of both groups in report writing.

Table 6:
Posttest performance scores of the and experimental group and control group

Group	Mean	t-value
Control Group	49.35	5.54*
Experimental Group	60.43	

* Significant at 0.05 level of significance

Revealed in Table 7 are the results of the t-test testing of the significant difference between the mean gain scores of the control group and experimental group. As shown, the t-value is 7.94, which indicates that the two methods used in teaching are not equal. Hence, at 0.05 level of significance, the project-based learning method used in report writing instruction is better than the traditional method, that is, lecture method.

The findings are confirmed by the Multimedia Project led by Penuel (2000). He indicated that students found increased engagement, greater responsibility for learning, increased peer collaboration skills, and greater achievement gains. Moreover, students also who had experienced the project work performed better in basic skills related to mathematics, planning, and linguistic problems (Cognition and Technology Group, 1992).

Table 7:
Mean gain scores of experimental group and control group

Control Group	Experimental Group	t-value
Mean	Mean	
11.97	24.26	7.94*

* Significant at 0.05 level of significance

Another point that may be ascribed to the results of this research is the level of motivation that the students have in their English class with the description *Writing in the Discipline*. Students in the experimental group had a higher level of motivation compared with the control group. This is also stressed by Simkins, Cole, Tavalin and Means (2002) that project-based learning method allows students to think for themselves and be involved in 'decision-making.' Also, one of the principles of project-based learning is collaborative teamwork problem-solving which needs learners to engage in independent work (Bonwell & Eison, 1991 in ERIC Digest). Because of that, students willingly devote extra time and effort to the project assigned to them.

In addition, tasks and exercises given to experimental group were accomplished with clear guide and procedures. This is reflected on the steps presented by Stoller (1997) and Shephard (1995). The steps are well-elaborated supported with specific tasks to be done. Since teaching report writing skills is a taxing endeavor because of its inherently difficult cognitive processes, thus, method to be used should be carefully evaluated (Flower & Hayes, 1981; Olson, 1976).

Report writing tasks should contain many features that are naturally motivating for the learning of writing. This could be effectively realized when the method employed ensures the enhancement of writing skills. Like what the study conducted by Johnstone, Ashbough and Warfield (2000) implied that repeated writing experience in project works or writing within a specific task domain incrementally improved students' writing skills. Authentic, collaborative investigation of a problem or a meaningful, creative writing paves the way for the development and expression of ideas. Thus, writing project given to students which generates ideas and opinions provides them a real reason to write.

Hence, this study has proven that project-based learning method in teaching and enhancing writing skills could enhance the report writing skills of students concentrating in English. This further shows the effect of the application of William H. Kilpatrick's project-based work method and Papert's Constructionism approach which served as a basis for the use of PBL method in the writing class.

Based on the findings of this study, the following conclusions are made:

There was a significant difference between the results in the pretest and posttest performance taken by the experimental group and of the control group, which means that the experimental group performed better in the posttest; and there was a significant difference between the mean gain scores in the pretest-posttest performances of the experimental group and control group, which shows that the experimental group performed far better than the control group.

Therefore, the following are recommended:

- (a) English teachers should be aware of the appropriateness of the method to be employed in the classroom especially if written communication is at stake.
- (b) Language teachers should consider PBL method in teaching report writing skills to students. For that, teachers should acquire innovative skills in conceiving, planning, designing and implementing the project-based method to avoid learning gaps especially in writing activities.
- (c) Curriculum designers/department heads need to carefully review the methods to be employed particularly in enhancing skills in writing reports which are not learned overnight. Hence, writing must be delivered to the students practically and functionally.
- (d) Language teachers should employ the project-based method in teaching writing skills since there is more to requiring projects.
- (e) Language teachers should employ methods in a language class that would develop appropriate skills of students. Thus, they need to be innovative, creative and resourceful.
- (f) English teachers should orient learners on the purpose of project tasks and should set clear, measurable, valid objectives in implementing such work in the classroom.

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