

The Effect of Project-Based Learning Model on Persuasive Writing Skills of Saudi EFL Secondary School Students

Majed Ghazai Alotaibi¹

¹ Ministry of education, Taif district, Saudi Arabia

Correspondence: Majed Ghazai Alotaibi, Ministry of education, Taif district, Saudi Arabia.

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Abstract

The aim of this study was to investigate the effect of project-based learning model on persuasive writing skills of Saudi EFL secondary students. The design of the study was quasi-experimental approach using pre and posttest for control and experimental groups. Participants were consisted of (59) students of third grade secondary school, randomly divided into two groups: experimental group consisted of (30) students and control group consisted of (29) students. Experimental group was taught using project-based learning while control group was taught using the traditional method. All participants were tested using the pre/post persuasive writing performance test before and after the intervention. The difference between the posttest's mean scores of the control and experimental groups were calculated using independent samples T-test. The result showed that there was a significant difference between the posttest's mean scores of the control and the experimental groups in favor of the experimental group. It was concluded that participants' level of persuasive writing performance significantly developed after receiving the explicit project-based learning model.

Keywords: writing, persuasive, project-based learning, EFL

1. Introduction

English language learning is critical in all fields as economic, scientific and cognitive explosion, so that Saudi Arabia attending to develop English language curricula based on international experiences. There are four basic skills of language learning. These are listening, speaking, reading and writing. Among these four language skills, listening and reading are receptive skills, while speaking and writing are productive skills. The final skill is writing in the hierarchy of language skills. Therefore; its efficiency comes with the mastery in receptive and productive skills. Previously, from our early generation to till now the productive skills of language are in focus of which writing is the most preferred outcome expected of students (Nasir, Naqvi & Bhamani., 2013).

One of the several writing genres is persuasive or argumentative writing. Consequently, persuasive writing performance includes examining an issue, developing an argument with enough evidences, countering opposing ideas and identifying claims (Abd Alhalim, 2016; Hasani, Hendrayana & Senjaya, 2017). It is considered the most challengeable kind of writing among of others (Ferretti, Andrews-Weckerly & Lewis., 2007; Ferretti & Lewis, 2019). For example, Ferretti & Lewis (2019) found that students unable to write a persuasive essay to convince others, and they only could generate reasons to support their position. Unfortunately, many learners struggle with writing in high schools. For instance, approximately 73% of eighth graders scored below the level of proficiency on the National Assessment of Educational Progress (National Center for Education Statistics, 2011a). Writing has always been a challenge for Saudi EFL students (Javid & Omer, 2014; Alkubaidi, 2017; Alfagiri, 2018). For example, Alkubaidi (2017) identified that students while are in schools told to memorize texts of writing to pass their English language exam, and they paid more attention to grammar, spelling and writing mechanism. Therefore, they were not able to engage in the process of persuasive writing because they worried about using grammar incorrectly (Alfagiri, 2018).

One commonly recommended way to overcome writing challenges is project-based learning (PBL) which is a student driven, teacher-facilitated approach to learning (Bell, 2010). It is the means which enable students to develop content of language and communicative skills through integrate their knowledge in their real lives while creating a project, on the contrary of traditional methods where teacher convey knowledge from textbooks to students (Simpson, 2011). Moreover, it is one of the most commonly used to activate persuasive writing skills.

As Hasani et al. (2017) showed that project-based learning is one of learning strategies for developing writing skills because it guides students to apply reflective thinking that is useful for improving students' competencies.

Hence, to the knowledge of the researcher, no experimental study examined the effect of PBL on persuasive writing skills in Saudi Arabia. The main objective of this study is to explore the effect of project-based learning on persuasive writing skills with a group of third-grade of secondary school students. Thus, the research question was formulated as: Is there a significant difference between persuasive writing scores of the students in the experimental group and the control group in terms of the usage of project-based learning model?

2. Literature Review

2.1 Project Based Learning

It has been more than a hundred years that the project methodology is used in the educational field. Project based learning has emerged from Dewey's (1916) philosophy of education and experiences which connected education to life outside school, and Kilpatrick's (1918) development of project method where "education and life, knowing and doing are continuous" (p.320). In respect of that, project-based learning is useful as it is connected to real-world challenges and motivates learners to apply their knowledge in feasible ways (Siririmangkorn, 2018). There are several definitions of project based learning as Holm (2011) defined it as a "student-centered instruction that occurs over an extended time period, during which students select, plan, investigate and produce a product, presentation or performance that answers a real-world question or responds to an authentic challenge" (p. 1). In addition, Praba, Artini & Ramendra (2018) defined PBL as "a learning model that focused on activities which attempt to produce learning product through project works" (p. 2).

The theory of constructivism considered the theoretical basis of project-based learning. The learners are diverse and each individual learner can construct new knowledge based on his current knowledge (Piaget, 1969; Vygotsky, 1978). According to constructivists the teacher needs to encourage a learner to act on objects and reason about reactions, and cultivate the atmosphere to promote learner autonomy, in addition, allows learners to pursue chosen projects, including physical-knowledge activities (DeVries, 2000). Moreover, it emphasizes the collaborative learning which leads to interaction and communication in classroom to develop language skills (Bekiryazıcı, 2015). Thomas (2000) identified that PBL has five crucial features include: projects are central, focused on questions or challenges, construction of knowledge and skills, student-driven projects and real-life project which is authentic to the student.

Several studies (Martinez, 2010; Simpson, 2011; Williams, 2016; Izzeldeen, 2017; Grant, 2017) have shown a significant impact of PBL in developing English language skills. As Williams (2016) claimed that English activities of project-based learning provide opportunities for learners to create open-ended questions, problem solve, reflect on their learning and work in groups to accomplish a common goal. In addition, Martinez (2010) indicated that in project based learning students generally worked together to take responsibility for their own learning, and they had opportunities for social interaction and experiences because students used primary, direct, or original sources rather than textbooks, lectures, and secondary sources, emphasized data and inventions created by learners rather than teachers; and investigates authentic questions and results in carefully defined products.

A study by Praba et. al (2018) found that a positive effect of project-based learning on students' writing of the ninth-grade students, and suggested that PBL likely boost students' communication skills, critical thinking, and creativity through collaborative work which foster writing skills, likewise Zahran (2018) showed that PBL has a positive effect on writing performance of university students. While the main skills of English have been examined, less attention has been given to the persuasive writing skills.

2.2 Persuasive Writing

Persuasive writing has considered the way through which we can convey ideas to others and solve life problems. Johnson & Kim (2010) reported that persuasive writing is an imperative cognitive skill that underlies conceptual change, problem solving, and other higher order skills of thinking. Furthermore, persuasive writing is related to critical thinking through which learners can analyze and evaluate existing knowledge. Pranowo (2000) indicated that there is a strong connection between the ability of critical thinking and persuasive writing skills. This claim is supported by Hasani et al. (2017) who confirmed that learners failed to develop their writing skills due to low critical thinking abilities.

There are several definitions of persuasive writing. It defined as "a kind of text in which an author supports his own view and try to refute counter-view about an issue including counter views" (Özdemir, 2018 P.112). To represent the structure of persuasive writing students need to pursue the following process: (a) identify clearly

their opinion or viewpoint, (b), mention reasons or evidences to back up their opinion, (c) explain why those reasons are appropriate reasons for their opinion, (d) identify the opinions of other people about this issue, (e) mention some reasons that other people might use to back up their opinion; (f) discuss why these reasons aren't appropriate reasons for the other person's viewpoint; (g) identify an introduction that gives a hint of what is to follow in the student's presentation of the argument, (h) write a conclusion that summarizes student's opinion about the issue (Ferretti & Lewis, 2019; Ferretti, Lewis & Andrews-Weckerly, 2009).

Previous studies in the context of English as a second language (L2) in Saudi Arabia have found poor student performance in general writing (Feddah, 2012; Alkubaidi, 2014; Alshammari, 2016), in addition to persuasive writing. For example, (Alshammari, 2016) conducted an overview with some Saudi students who attended (TOFLE) and (ILIEETS) standardized tests and reported that most of them struggled with persuasive writing skills, and all the students who had taken these tests revealed that their lowest scores were in writing section.

Despite conducting studies on the use of different strategies to develop persuasive writing in contexts of L1 or L2 (Midgette, 2008; Ismial, 2016; Mora-González, Anderson & Cuesta-Medina, 2018), little specific attention has been given to the structure of basic persuasive essays as a project.

Nippold, Ward-Lonergan & Fanning (2005) suggested that teachers could establish appropriate methods of arguing both for and against the issue or problem. After all points have been evaluated the controversy is resolved. Visual prompts, such as a picture of a two-sided scale that must be balanced, can be used to stimulate the students to "weigh" each side of the issue carefully. Subsequently, the speech-language pathologist and teacher assisting can help students to begin writing their essays.

Persuasive writing skills, activities and strategies are required to embed in the English language curriculum. Accordingly, Rachlin (2008) evaluated the implementation of "I Have Something to Say" curriculum which designed to systematically and gradually fulfill three instructional goals. First, student engagement with writing tasks increases. Second, each student develops personal voice in writing. Finally, students write persuasive essays higher in quality and quantity. The result showed that students engaged, chose the topics and increase the sense of individual voice, moreover, students developed persuasive essays which greater quality and quantity of writing.

3. Method

3.1 Research Design

In this research quasi-experimental approach was adopted to determine the effect of independent variable (project-based learning model) on development of dependent variable (persuasive writing). The design included a control group and an experimental group.

3.2 Participants

The participants of this research consisted of (59) male students, they were selected by cluster sampling method from third-grade secondary school at Taif district in Saudi Arabia during the first semester of the academic year (2019 – 2020). Their age ranged from 17 to 18 years old. The sample randomly assigned into two groups, one (29) students for control and the other consisted of (30) students for experimental group, the two groups taught the same units of curriculum using the PBL and traditional method, respectively.

3.3 Instrument

The tool of data collection was a pre and posttest, the purpose of using the test was to determine progress and growth over a certain amount of time at persuasive writing performance. The pre-test was administrated to determine the initial level of persuasive writing skills. The post test was administered to measure the participants' performance after the intervention. The tests consisted of writing a persuasive essay, to achieve that, two-hour duration was conducted to both groups who were tested before and after the formal instruction to study the effect of project-based learning model on the persuasive essay writing and to compare the differences between PBL model and traditional method. The participants' essays were scored by the researcher using (Rachlin, 2008) persuasive essay scoring rubric.

The test was submitted to jury members specialized in the field of methods of teaching English to judge the validity and the appropriateness of the test. The researcher accepted the jury members' comments and made the required modifications. Reliability of the test was established through the test - retested administration. The test - retest Reliability was ($r = 0.90$). This proved that the persuasive writing test was reliable.

3.4 Procedures

After the sample was assigned randomly, and the units were identified (Appliance of science and Game on), which the two groups would study, the researcher began to apply pre- test on the sample of the research, the students were required to write 200-250 words persuasive essay, the test lasted two hours and computing the result. Then, for four weeks project-based learning model was presented to the experimental group, however the control group was taught in the traditional way by their main teacher. The PBL model has developed based on some previous researches (Thomas, 2000; Martinez, 2010; Soparat, Arnold & Klaysom, 2015), subsequently, the lessons plan was written depending on PBL model in six phases as following:

1- Motivation: teacher stimulated students feeling through activate their previous knowledge using videos, picture or storytelling to encourage students' curiosity.

2- Modelling: it is one of the influential ways that can help students improve their writing skills, in this phase teacher showed a component of persuasive essay and asked them to read to determine how persuasive essay written.

3- Planning: students were given the opportunity to discuss the topic and deadline of written project which they developed individually or in group according to their interests and needs, in addition, the teacher identified resources and allowed students to choose a driving question for their projects.

4- Implementation: in this stage students developed their projects to address the driving question, and participated in various tasks of the persuasive writing projects.

5- Assessment: in this stage an authentic assessment was conducted, most prominently performance-based assessments, and artifacts of student such as blogs, writing samples, journals, or exhibits. Teacher provided ongoing feedback and helped students to engage in self-assessment and peer feedback deepened on the rubric which was designed to help them to assess their projects and included criteria for each component of persuasive essay.

6- Public Product: at final stage the students were required to demonstrate persuasive essays by creating a product that was presented or offered to the class and beyond the classroom. Figure 1 show how PBL model is designed and developed.

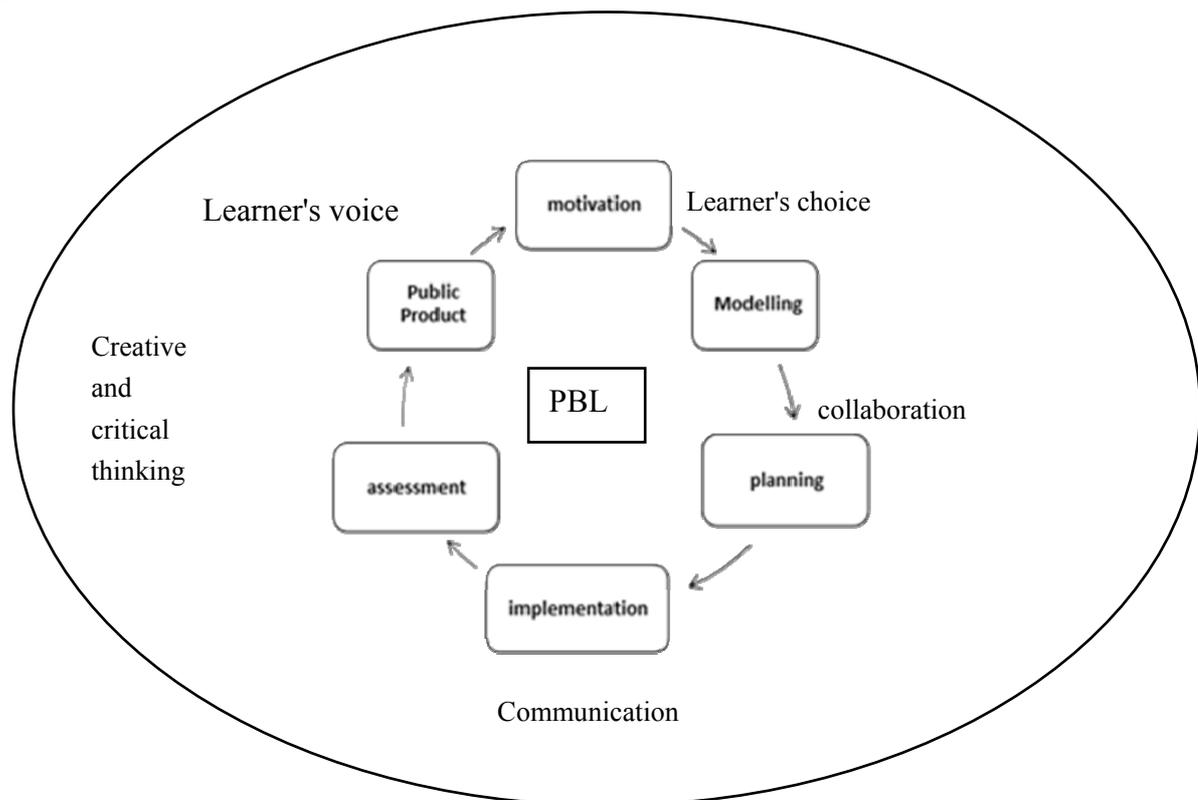


Figure 1. Project Based Learning Model

Eventually, the persuasive writing test was again conducted as post-tests, the posttest was given to the same sample of both groups using the same test instrument. The data of the pretest and posttest were collected and analyzed using SPSS (Statistical Package for Social Sciences).

4. Result

Before examining the research question: Is there a significant difference between persuasive writing scores of the students in the experimental group and control group in terms of the usage of project-based learning model? pre-test was applied to experimental and control group to determine the difference between two groups in "The appliance and game on" units. The comparison of pre-test results groups of the experimental and the control are presented in Table 1.

Table 1. Independent Samples t-test on the pre-test of persuasive writing performance

Group	N	Mean	Std. Dev.	df	t	p
Experimental	29	8.34	2.33	57	0.35	0.72*
Control	30	8.60	3.20			

*p>.05

In Table 1, the pre-test persuasive writing scores of the students in the experimental group and the control group have been compared using T- test. The mean scores of the students in the experimental group were 8.34 and the mean scores of the students in the control group were 8.60. The t-value has been found as [0.35]. In the light of this result, there was no statistically significant difference between the pre-test scores of the students of these two groups in .05 level [$p = .72$, $p > .05$]. Prior to the experimental process of the study, it can be said that the pre-learning of both groups' levels in "Appliance of science and Game on" units in English subject matter were equally. After treatment was received, the comparison of post-test results between groups of the experimental and the control are presented in Table 2.

Table 2. Independent Samples t-test on the posttest of persuasive writing performance

Group	N	Mean	Std. Dev.	df	t	p
Experimental	29	20.62	2.33	57	9.60	0.000*
Control	30	10.32	3.20			

*p<.05

As shown in the Table 2, the mean of the experimental and control group during the posttest were 20.62 and 10.32 respectively. The probability value was .000 which is less than 0.05 level of significance. This mean there were statistically significant differences at level ($\alpha \leq 0.05$) between the mean scores of the experimental and control group in the persuasive writing performance post-test in favor of the experimental group.

5. Discussion

The present study demonstrated a positive effect of project-based learning on developing persuasive essay writing. PBL is one of the most common strategy used to activate writing skills, however, no studies have previously examined its effect on persuasive writing in Saudi Arabia. The objective of this study was to determine the effect of the project-based on Saudi learners' persuasive essay writing. Here we found that there was a significant difference between persuasive writing scores of the students in the experimental and the control group in terms of the usage of project-based learning in favor of the experimental group. As a consequence, the PBL model helps students to choose the projects according to their interests and needs, the teacher provides modelling of how to write a persuasive essay using the PBL model, and projects help students to reflect on their learning using the authentic assessment, so that students were motivated, collaborative and engaged in the learning process. One inherent weakness of this study was the use of quantitative approach only, so further research need using mixed method design or qualitative approach.

The result of this study is consistent with previous studies such as Zahran (2018), Aghayani & Hajmohammadi (2019) conducted experimental design and indicated the positive effect of project-based learning on students' writing skills performance. In the process of writing as project, learners get access to opportunities of activating their prior knowledge and experiences, the ability to work in group, choose their projects based on their interests and present their projects to the public audience. Moreover, Poonpon (2017) conducted a study using qualitative

design and revealed that project-based learning enhanced students' skills of English (i.e., listening, speaking, reading and writing). Rachlin (2008) indicated that students develop their ability in persuasive writing when they motivated and have choice of what to write about. In the PBL model, motivation, learner's choice and voice considered the main principles. On the other hand, Collier (2017) found that project-based learning had no significant effect on performance of students in writing. However, according to the result of the posttest, the application of project based learning model for Saudi's students in EFL classes produced positive effect on persuasive writing skills: identify their position, provide reasons and evidences to support their positions, state counterclaims, refute counterclaim, in addition to general writing skills: organization, coherence and writing mechanisms.

6. Conclusion

This study has investigated the effect of project-based model on developing persuasive writing for third-grade secondary school Saudi students. Based on a quantitative analysis, the result indicates the significant effect of project-based learning model on teaching persuasive writing skills. Therefore, our approach could help English teachers to implement project-based learning model in teaching writing skills and language skills in general. We suggest that persuasive writing can be taught in an authentic way. In addition, curriculum designers need to embed persuasive writing skills activities in English language curriculum for high schools. A further important implication is project-based learning approach should be made part of curriculum and instruction colleges courses at university. Based on the result, further studies are needed to determine the effect of project-based learning model on enhancing students creative writing and high order think skills, in addition qualitative design should be applied to discuss the role of project-based learning on developing language competences.

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