Project-Based Learning: Beyond a Means to Promote Language Skills

Behnam Aghayani
Independent Researcher, Kermanshah, Iran
aghayani.behnam@gmail.com

Abstract

Considering the importance of project-based learning in EFL context, the present study first aims to review the studies that have investigated the effect of project-based learning on language skills in the last decade, while the second, using sociocultural theory as a theoretical framework, explores EFL learners' attitudes toward project-based learning. In addition, the differences between female and male EFL learners' attitudes toward project-based learning are examined in this study. To reach this goal, a sample of 210 Iranian university EFL learners both female (n=150) and male (n=60) participated in this study. A project-based learning questionnaire was used to collect the required data using a 6-point Likert scale. The results revealed that EFL learners had a positive attitude toward project-based learning. Moreover, based on the data analysis, there were no significant differences between female and male responses to the questionnaire items except for two questions in which female learners were more positive than male learners. The results of the study could be of interest both to EFL teachers who want to engage their students in project-based learning and to researchers who seek to investigate on the effect of project-based learning among different genders.

Keywords: EFL learners, language skills, project-based learning, PjBL

INTRODUCTION

In the last decade, there has been a growing interest among English as a Foreign Language (EFL) teacher in using project-based learning (PjBL) in their classrooms. With PjBL, students become more engaged in learning language in the EFL context (Artini et al., 2018). PjBL not only allows students to have control over their learning (Habók & Nagy, 2016) but also helps them to become autonomous learners (Yuliani & Lengkanawati, 2017). In addition, it can be considered as a trigger factor to enhance EFL learners' foreign language competence (Vaca Torres & Gómez Rodríguez, 2017). In other words, one of the triggers for the adoption of active learning in the EFL context can be the implementation of PjBL (Yamada, 2021). PjBL aims "to involve students in a language learning process that promotes interaction among students, creates connections with their reality, and provides enough opportunities to use meaningful content to carry out a final project" (Saenz et al., 2018, p. 277).

On the one hand, as a learner-centered approach, PjBL provides authentic and meaningful context for language learning (Beckett & Slater, 2018); on the other hand, enhances students' academic achievement (Chen & Yang, 2019), develops their life skills namely "personal and cooperative skills" (Ghosheh Wahbeh et al., 2021), and focuses on expanding their transferable skills (Brooks & Kerschen, 2022). Overall, implementing PjBL in the EFL context improves learners' willingness to communicate (Farouck, 2016), boosts and triggers their critical thinking (Affandi & Sukyadi, 2016; Tran & Tran, 2020), regulates and reduces their anxiety

(Farouck, 2016; Park & Hiver, 2017), positively influences their motivational profiles (Park & Hiver, 2017), consolidates their self-efficacy (Park & Hiver, 2017), improves their self-confidence and decision-making abilities (Sirisrimangkorn, 2018), increases their motivation and creativity in learning (Syarifah & Emiliasari, 2019; Zaafour & Salaberri-Ramiro, 2022), maintains their engagement (Stoller & Myers, 2020), develops their self-esteem (Yimwilai, 2020), and raises their development (Yamada, 2021).

Theoretical Framework
This study takes sociocultural theory, developed by Lev Semyonovich Vygotsky, as its theoretical framework. According to this theory, "learning and development happen both at the intermental plane, interactions between people, and on the intramental plane, what happens within someone" (Lund, 2016, p. 11). In addition, it could be employed to encourage and facilitate student engagement in the classroom (Skalet, 2020). The tenets of sociocultural theory are reflected in PjBL (Park & Hiver, 2017) and "based on this theory, PjBL is expected to encourage students to actively interact in authentic and meaning-based learning context" (Yamada, 2021, p. 2).

LITERATURE REVIEW

A key element to the success of PjBL lies in the fact that it enhances language skills of EFL learners. In the following sections, the studies that have investigated the effect of PjBL on four language skills (listening, reading, speaking, and writing) in the last decade are reviewed and discussed in details. Then, the study is provided the results from previous studies that explored learners' attitudes toward PjBL.

PjBL and Language Listening Skills
A series of recent studies has indicated that PjBL improves learners listening skills. For example, Zhang (2015) in her study on PjBL among Chinese EFL learners came to conclusion that it improved EFL learners' listening comprehension. In another study, Bakar et al. (2019) explored on the effect of PjBL in improving the oral communicative competence among 44 Malaysian EFL learners. The findings showed that PjBL teaching improved EFL learners' oral communicative competence. Moreover, Karismawati (2021) investigated EFL learners' perspectives on PjBL integration into a flipped critical listening course among 28 EFL learners in Indonesia. She found that EFL learners had a positive attitude toward the implementation of PjBL in their listening course. Febiyanti et al. (2021) in their study examined the effectiveness of PjBL video on EFL learners' listening skills. The participants of their study were 40 EFL learners in Indonesia. The results revealed that PjBL had a significant positive effect on EFL learners' listening comprehension. More recently, Krisnoviani and Sulistyani (2022) in their study sought to investigate the influence of PjBL on students listening comprehension skills. The results from 31 students of multimedia majors showed that the implementation of the PjBL had a significant effect on their listening comprehension skills.

PjBL and Language Reading Skills
Previous studies have shown the significant effect of PjBL on EFL learners' reading skill. For instance, Poorverdi Shiraz and Ezati Larsari (2014) explored on the effect of PjBL tasks on reading comprehension among 120 Iranian EFL learners. The findings indicated that PjBL had significant effect on learners' reading comprehension. Similarly, Soleimani et al. (2015) examined that effect of PjBL on reading ability of 80 Iranian EFL learners. They found a significant effect of PjBL on EFL learners' reading comprehension performance. In another study, Kavlu (2015) investigated on the effect of the implementation of PjBL on reading

comprehension ability among 42 Iraqi EFL learners. The findings from her study showed that PjBL had significant effect on EFL learners' reading ability. Furthermore, Friska (2018) explored on the effectiveness of PjBL on reading comprehension of narrative text among 36 students in Indonesia. Her findings revealed that implementation of PjBL improved students' reading comprehension. The findings from Anggraini's study (2021), which examined the effect of PjBL among 72 Indonesian EFL learners' reading skills, revealed that PjBL increased learners' reading skills. Overall, the findings indicated a significant improvement in the learners' reading achievements after using PjBL.

PjBL and Language Speaking Skills

A large number of existing studies in the literature have examined the effect of PjBL on speaking skill. The findings from Fitria's study (2013) which examined the impact of implementation of PjBL on speaking activities among 30 EFL learners in Indonesia, showed that PjBL has rich speaking activities in the EFL classrooms. Rochmahwati (2015) conducted a study among 70 EFL learners in Indonesia to explore the effect of PjBL on speaking ability. The results showed a significant effect of PjBL on EFL learners' speaking ability. In a study of the PjBL in relation to the speaking skills among EFL learners in Indonesia, Dewi (2016) came to conclusion that PjBL technique improved EFL learners' speaking skills. Moreover, Zare-Behtash and Sarlak (2017) explored on the influence of PjBL on EFL learners' speaking ability. The participants of their study were 45 Iranian elementary EFL learners and the findings from their study revealed that PjBL promoted EFL learners' speaking ability. Sirisrimangkorn (2018) examined the implementation of PjBL on speaking skills by focusing on drama among 23 EFL learners in Thailand. She found that PjBL improved speaking skills of EFL learners. In another study, Wuryantari Winasih et al. (2019) investigated on the effect of PjBL using e-poster on speaking ability of 61 Indonesian EFL learners. The results indicated a significant effect of PjBL of learners' speaking ability. Moreover, Sholikhah (2019) explored the impact of implementation of PjBL on speaking skill among 30 Indonesian EFL learners. The results revealed that PjBL elevate EFL learners speaking skill. Miraei Mohammadi et al. (2021) examined the effect of face-to-face PjBL on speaking ability of 49 Iranian EFL learners. They found that PjBL method had positive significant effect on the speaking ability of EFL learners. Syahida et al. (2022) in their study on the impact of Instagram-mediated PjBL in teaching speaking skill among Indonesian EFL learners found that Instagram-mediated PjBL was an effective technique in improving EFL learners' speaking skill.

PjBL and Language Writing Skills

Over the past decade most research on PjBL has emphasized its significant effect on writing skill. Specifically, in 2016, Affandi and Sukyadi investigated effectiveness of PjBL on writing achievement of 78 EFL learners at the tertiary level in Indonesia. The findings showed that PjBL method improved the EFL learners' writing achievement. Abbasian et al. (2017) explored on the effect of PjBL on paragraph writing skills among 36 Iranian EFL learners. The results from their study showed that PjBL had positive significant effect on EFL learners' writing performance. In another study titled 'project-based learning: Promoting EFL learners' writing skills', Aghayani and Hajmohammadi (2019) examined the effect of PjBL on writing skill among 70 Iranian EFL learners. They found that PjBL not only had significant effect on EFL learners' writing skill but also promoted their writing ability in a collaborative environment. Furthermore, the findings from Alotaibi's study (2020) who explored the effect of PjBL on persuasive writing skills on 59 EFL learners in Saudi, indicated a significant effect of PjBL on learners' persuasive writing performance. Suwandi (2021) investigated the impact of PjBL implementation combined with the WhatsApp application on writing skills of Indonesian EFL learners. The findings showed that EFL learners' writing skills improved significantly after the

implementation of PjBL. Recently, Aggreani et al. (2022) who explored on the effect of PjBL on writing skills of 32 Indonesian EFL learners, found that PjBL had significant impact on learners' writing skills. The findings from Khulel's study (2022), who examined the impact of combining PjBL with Instagram on 32 Indonesian EFL learners' writing skills, revealed that PjBL increased learners' writing abilities.

Studies on Learners' Attitudes Toward PjBL
This section reviews the literature related to learners' attitudes toward PjBL. In this regard, Petersen and Nassaji (2016) explored on learners' beliefs and attitudes toward PjBL among 88 ESL learners in Canada. The findings revealed that they had positive attitudes toward PjBL. The findings from Canh's study (2017) who examined students' attitude toward the use of PjBL in an English class among 81 EFL learners in Vietnam, indicated positive attitudes of students toward PjBL in the EFL classroom. In another study in Indonesia, Haryati (2017) investigated on 40 EFL learners' attitudes toward the use of PjBL in the application of Computer Assisted Language Learning (CALL). The findings showed that the EFL learners' attitudes toward PjBL were positive. Moreover, Tran and Tran (2020) in their study titled 'attitudes toward the use of project-based learning: A case study of Vietnamese high school students', examined learners' attitudes toward PjBL among 155 Vietnamese EFL learners. They came to conclusion that EFL learners expressed positive attitudes toward PjBL.

Purpose of the Study
Based on the findings from previous studies in the last decade, it can be concluded that the implementation of the PjBL had positive significant effect on four language skills in the EFL context. This indicates a need to understand the various perceptions of PjBL that exist within the field of English as a foreign language. In addition, "there is still more research needed on aspects of project-based learning, its usage in foreign language courses, effective structure and execution, students' attitudes toward it, and the measuring of student achievement" (Parker, 2020, p. 95). By giving a glance at the literature, there has been less previous studies that explored on EFL learners' attitudes toward PjBL. Moreover, no study to date has examined this case in the context of Iran. Besides, gender differences in the attitudes toward PjBL in the EFL contexts remains unexplored. So, since the success of PjBL depends on learners' attitudes (Petersen & Nassaji, 2016), the aim of present study is to shine new light on this debate through an examination of how EFL learners understand PjBL. Thus, the study designed to answer the following research questions:

- What are EFL learners' attitudes toward PjBL and its different features?
- Are there any differences between female and male EFL learners' attitudes toward PjBL?

METHODS

Research Design
The present study adopted a descriptive research design, which is "a valid method for researching specific subjects and as a precursor to more quantitative studies" (Sural, 2018, p. 568). To answer the research questions, the data were generated from a quantitative questionnaire.

Research Participants
Two hundred ten EFL learners from Islamic Azad University and Payame Noor University in Iran participated in the study. They included both female (n=150) and male

(n=60) native speakers of Persian. The participants were selected through convenience sampling and their ages ranged from 19 to 40 years old.

Instrument

Project-Based Learning Questionnaire is a 10-item self-report questionnaire specifically designed by Petersen and Nassaji (2016) to measure learners' attitudes about the essential characteristics of PjBL (see Appendix). EFL learners respond to the items using a 6-point Likert scale format. All items ranging from *strongly disagree* to *strongly agree*. An estimated Cronbach's alpha and construct validity for the questionnaire was reported to be 0.75 (Petersen & Nassaji, 2016). Internal consistency for the questionnaire used in this study indicated an acceptable reliability of 0.82. According to Petersen and Nassaji (2016, pp. 22-23) the features these questionnaire items examined are presented in Table 1.

Table 1. Features of the Questionnaire Items

Items	Features
1	"Getting students to choose the topics for their projects"
2	"Use of activities that encourage reflection"
3	"Group work activities"
4	"Going beyond textbooks"
5	"Getting students to experience real-life activities that involve going outside the classroom"
6	"Focusing on themes rather than individual linguistic items or skills"
7	"Producing a final report for projects"
8	"Teachers' taking on different roles in the class"
9	"Giving different roles to students"
10	"Working on a project for more than a single class session"

Procedure

Data were collected through distribution of the online questionnaire among EFL learners of both Payame Noor University and Islamic Azad University. The participants were provided phone number and email address if they had any misunderstanding or concerns related to the questionnaire items. They were also informed that participation was voluntary and all information collected through the questionnaire would remain confidential and anonymous. From the initial distribution to 400 EFL learners, 210 questionnaires were completed. Then, the data from the questionnaire items were analyzed by means of SPSS version 24.

RESULTS

The first research question of this study explored EFL learners' attitudes toward PjBL. To answer this question, the 10 questionnaire items were examined. Table 2 shows that the means of EFL learners' responses for 10 questions of the questionnaire were positive. This demonstrates that EFL learners have positive attitude toward PjBL.

Table 2. Results of EFL Learners' Overall Opinions of Aspects of PjBL

Questions	M	Standard Deviation
Q1	5.03	0.81
Q2	4.69	0.82
Q3	5.52	0.60
Q4	4.67	0.96
Q5	4.45	1.15
Q6	4.24	1.31
Q7	4.79	0.81
Q8	5.35	0.64
Q9	5.58	0.49
Q10	5.46	0.58

The second research question examined differences between female and male EFL learners' attitudes toward PjBL. So, in order to compare female and male responses to the questionnaire items a 'Non-parametric Mann–Whitney U' tests were used. All tests were two-tailed and the α was set at $p = 0.05$.

Table 3. Comparison of Female and Male Responses to Questionnaire Items

Questions	Female		Male		Sig.
	M	Standard Deviation	M	Standard Deviation	
Q1	5.06	0.77	4.93	0.68	0.22
Q2	4.54	0.83	4.20	0.85	0.005
Q3	5.48	0.61	5.45	0.59	0.65
Q4	4.72	0.89	4.51	0.98	0.17
Q5	4.64	1.19	4.31	1.28	0.10
Q6	4.32	1.33	4.08	1.27	0.21
Q7	4.84	0.88	4.51	0.91	0.019
Q8	5.28	0.64	5.33	0.47	0.90
Q9	5.65	0.47	5.70	0.46	0.59
Q10	5.40	0.58	5.50	0.50	0.42

As Table 3 shows, the means of female and male responses for questions 1, 3, 4, 5, 6, 8, 9, and 10 were similar and positive. In addition, there were no significant differences between female and male responses for these questions. On the other hand, although both female and male favored "the use of activities that encourage reflection (Question 2)" (Petersen & Nassaji, 2016, p. 22), but there was significant difference between female and male responses for this question ($p < 0.05$) and female were more positive (M = 4.54) than male (M = 4.20). Another aspect of PjBL on which female and male differed concerned Question 7 that is "producing a final report for projects" (Petersen & Nassaji, 2016, p. 22). As Table 3 indicated, the difference between female and male regarding this question was statistically significant ($p < 0.05$); in which female had a higher mean (M = 4.84) than male (M = 4.51).

DISCUSSION

According to the results of the questionnaire, the study shows that EFL learners have positive attitudes toward PjBL. EFL learners' positive responses toward PjBL is supported by other study in the literature (Petersen & Nassaji, 2016), which show that ESL learners expressed positive attitudes toward PjBL in language classrooms. The results are similar in terms of learners' attitudes toward PjBL, even though the participants in their study are 88 ESL learners while participants in the present study are 210 EFL learners. The findings are also in line with previous studies (Cahn, 2017; Haryati, 2017; Tran & Tran, 2020). They demonstrate that the EFL learners' attitudes toward PjBL are positive in the EFL classrooms. According to Stewart et al. (2019), "a key condition for achieving team learning is the creation of a class environment where students feel good and participate eagerly" (p. 5). Hence, based on the findings of current study, in can be concluded that EFL learners could be succeeded in a PjBL environment.

The second research question of this study is "Are there any differences between female and male EFL learners' attitudes toward PjBL?" The results reveal that there are no significant differences between female and male responses for questions 1, 3, 4, 5, 6, 8, 9, and 10. However, there is significant differences between female and male responses for questions 2 ("I like talking about and thinking about things I did in class") and 7 ("I like working toward a final product in class"). Overall, both female and male responses are positive for all questions except question 2 and 7 in which female learners are more positive than male learners. These findings support the findings of Tanaka (2022) who report that female learners are more motivated than male learners to learn English in PjBL setting.

CONCLUSION

The results suggest that PjBL deserves more attention than it has so far been given because it seemed clear that PjBL could have positive outcomes for EFL learners and it promotes positive attitudes toward EFL learning (Artini et al., 2018). In the last decade studies, the variation in the implementation of PjBL at different countries among EFL learners was observed and measured significant for all language skills. Moreover, the results of the current study confirms that EFL learners have positive attitude toward PjBL. Hence it can be concluded that PjBL not only enhances EFL learners' language skills but also promotes their attitudes toward language learning. To put it simply, PjBL is beyond a means to promote language skills. The results from this study are essential, particularly for EFL teachers who want to engage their students in PjBL. The study also shed light for researchers who seek to investigate on the effect of PjBL among different genders. Future study should consider the practical aspects of PjBL for EFL teachers more carefully, for example while implementing PjBL and its effectiveness is of worth attention for both learners and teachers in classrooms, few teachers have necessary knowledge for rigorous implementation of PjBL (Potvin et al., 2021). Since the number of the participants is one of the limitations of the present study, future study can deal with a larger sample size from more universities and language institute across the country to gain more data on the topic. In addition, future study should further develop and confirm these initial findings by assessment of PjBL through experimental research design.

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APPENDIX

Project-Based Learning Questionnaire: Student Questionnaire (Petersen & Nassaji, 2016)

In the following section, please indicate your opinion after each statement by circling the number that best indicates the extent to which you agree or disagree with the statement.

For example, if you strongly agree with the statement, circle 6. If you strongly disagree with the statement, circle 1. Please circle one (and only one) whole number after each statement and answer all.

Statements	Strongly disagree	Disagree	Slightly disagree	Partly agree	Agree	Strongly agree
1. I like giving the teacher ideas for topics to discuss in class.	1	2	3	4	5	6
2. I like talking about and thinking about things I did in class (e.g., journals, group discussions about projects we do in class.)	1	2	3	4	5	6
3. I like working on projects in groups.	1	2	3	4	5	6
4. I like to use a variety of materials in addition to textbooks (e.g., films, Internet, and people).	1	2	3	4	5	6
5. I like going outside the classroom to do activities or get hands on experience.	1	2	3	4	5	6
6. I like it when my classes have a lot of real-world topics and relate to the community (e.g., elections, the environment, local issues, etc.).	1	2	3	4	5	6
7. I like working toward a final product in class (e.g., a scrapbook collection of writing and pictures, a formal written report, a classroom display, a newspaper, a student performance, a radio or video program).	1	2	3	4	5	6
8. I like it when my teacher has many different roles and I see him/her as more than just a teacher.	1	2	3	4	5	6
9. I like having different responsibilities and roles in class (e.g., group secretary – writing down information, Internet expert, presenter, or organizer, etc.).	1	2	3	4	5	6
10. I like working on one project for more than one class.	1	2	3	4	5	6