



## Project-Based Learning: Opportunities Versus Challenges

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### Abstract

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#### Keywords:

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Project-based learning (PBL) has generated considerable research interest during recent decades. As a constructivist and learner-centered approach, PBL engages students in hands-on activities and prepares them for real life. The purpose of the present review is to probe into the status of PBL in teaching English as a second or foreign language (ESL/EFL) and its opportunities and challenges. Previous research has reported some benefits as well as pitfalls for the implementation of PBL. Specifically speaking, students can benefit from PBL because it triggers their motivation, engagement, creativity, communicative skills, and the development of critical thinking skills. However, there are some studies that highlighted the drawbacks of PBL such as classroom management, shortage of professional teachers, and students' adaptation to their new role in PBL. Noteworthy to mention is that a substantial body of research has confirmed that the merits of PBL implementation outweigh its drawbacks. The learning model proposed by Mergendoller and Thomas (2005) provides a well-defined framework that can greatly minimize the challenges of PBL by providing clear structures to the teachers and clarifying different stages and learning objectives. Such a framework can also be beneficial to the students in adjusting to their new roles in PBL. The study ultimately concludes that teachers and researchers can hope for promising results if the adoption of PBL is carefully planned and carried out in different educational settings.

### یادگیری پروژه محور: فرصت ها و چالش ها

در دهه های اخیر پژوهشهای زیادی در خصوص یادگیری پروژه محور انجام شده است. این نوع یادگیری به عنوان یک رویکرد دانش آموز محور و ساختارگرایانه دانش آموزان را درگیر فعالیتهای عملی نموده و آنها را برای رویارویی با زندگی واقعی آماده می سازد. هدف از مطالعه مروری حاضر بررسی وضعیت یادگیری پروژه محور در آموزش زبان انگلیسی و هم چنین درک موقعیتهای و چالشهای این نوع آموزش است. پژوهشهای پیشین مزایا و معایب یادگیری پروژه محور را گزارش کرده اند که به عنوان مثال میتوان به افزایش انگیزه، مشارکت، خلاقیت، مهارتهای ارتباطی و هم چنین تفکر انتقادی اشاره نمود. هر چند برخی مطالعات، مشکلاتی نظیر مدیریت کلاس، کمبود مدرسان حرفه ای، و تطبیق دانش آموزان با نقشهای جدید خود در آموزش پروژه محور را گزارش کرده اند. شایان ذکر است که تحقیق های قابل توجهی تایید کننده مزایای یادگیری پروژه محور نسبت به معایب آن میباشند. مدل یادگیری پیشنهاد شده توسط مرگن دولر و توماس (2005) چارچوب معینی را توسط دستورالعملهای خاص و تبیین مراحل مختلف و اهداف آموزشی برای مدرسان را ارائه مینماید که این چارچوب به نوبه خود چالشهای یادگیری پروژه محور را به حداقل کاهش می دهد. این چارچوب به زبان آموزان نیز کمک خواهد کرد که با نقشهای جدید خود در رویکرد پروژه محور سازگار شوند. مطالعه حاضر در نهایت بیانگر این نتیجه است که در صورتی که رویکرد پروژه محور با دقت لازم طراحی و مورد استفاده قرار گیرد می تواند نتایج امیدبخشی را در پی داشته باشد.

**واژگان کلیدی:** یادگیری پروژه محور، محیطهای آموزشی، موقعیتهای، چالشها

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## Introduction

Undeniably, new challenges have already occurred in the present globalized world of the 21<sup>st</sup> century which have entailed great innovations in education in general and in second language (L2) education in particular (Guthrie, 2019). An important innovation in L2 education is project-based learning (PBL) which has generated considerable research interest during recent decades. Project-based learning was first introduced into the field of second language education in 1980s to make a great shift from teacher-directed to student-centered approaches (Beckett, 2006). PBL originated from the progressive movement which is in favor of student-centered and experiential approaches to learning which advocate deeper learning through active involvement in the real-world problems and challenges (Pellegrino & Hilton, 2012). More specifically, PBL is a process-oriented method that highly appreciates inquiry, reflection, negotiation of meaning, problem solving, discussion and collaboration, and self-directed learning (Blumenfeld, et al., 1991). This system of collaboration and investigation of strategies and resolutions is the fundamental reasoning behind the movement of PBL, which is closely tied to the concepts of the 21<sup>st</sup> century skills. (Guthrie, 2019). As a necessity to fulfill the instructional objectives of the present century, PBL has already altered L2 education through instructional procedures which engage individuals in hands-on activities and prepares them for the real life (Bell, 2010). The new focus of education has recently lied on the 21<sup>st</sup> century competencies such as higher-level thinking skills and interpersonal as well as intrapersonal skills which can lead to new opportunities for PBL implementation.

As a constructivist and learner-centered approach, PBL links linguistic input and its real-world equivalent (Stoller, 1997). It is also regarded as both a process and product-oriented pedagogical methodology which tends to blend learning with concrete outputs presented by learners. A project is a product which is concrete and is formed as hands-on activities on various themes under the supervision of a teacher in the classroom (Thomas, 2000). Meanwhile, students are active in the process of PBL while teacher guides the process, provides feedback, and assesses their performance. Furthermore, PBL requires creative, autonomous, and productive students all through the process and increases the students' self-respect and self-confidence. Previous research showed that 90% of the students who learned English through PBL seem more confident and optimistic in their workplaces as well as academic life because they didn't learn just through theory but through practice (Hamurcu, 2003).

A careful analysis of the present literature on PBL implementation in L2 educational settings reveals that the main goal of project-based learning is to expose language learners to a sort of comprehensible input so that they can produce comprehensible output (Eyring, 1989). In contrast to traditional learning models characterized by short-term class practices, PBL class greatly emphasizes long-term learning activities that are holistic, learner-centered, and integrated with real world issues (Thomas, 2000). This fundamentally necessitates a set of skills for the students such as learning from their peers, being responsible for their own learning, and achieving their learning goals (Gillies, 2007; Wang, 2012).

Practitioners and education reform specialists highly appreciate PBL; nevertheless, research has not sufficiently addressed the increasing tendency towards PBL. Further research is needed to confirm whether PBL can better prepare students for college and career than the teacher-led approaches. Accordingly, the present article reviews the studies conducted on PBL in different educational settings with an attempt to probe into the status of PBL in English language teaching and its opportunities and challenges.

### **Literature Review**

In recent decades, an impressive research effort has been directed toward project-based learning. Project-based learning emerged around half a century ago as a practical strategy (Boss, 2011) which makes students responsible for their own learning by giving them an opportunity to ask and answer questions rather than responding to teachers and textbook questions. Gultekin (2005) claimed that PBL changes passive students to active thinkers and researchers who enjoy higher order thinking skills.

### **Opportunities vs. Challenges of PBL**

In a PBL class, teachers think of a project and do their own first. Then they work backwards to design lessons through which they can teach skills the students need to learn. All through the process, the teacher sets deadlines, helps students follow the steps to create their project, and provides continual feedback. At the end of the course, there will be no test. Students usually demonstrate their projects in a gallery show or may create a website for the public to use. Needless to say, teacher functions as a guide, not as the authority or the only source of information. These

are students who organize their projects and find resources for their tasks. In such classes, trial and error can be a valuable lesson (Lamar & Mergendoller, 2010; Volger et al., 2018).

As Stoller (2006) claims, students can benefit from PBL because it triggers their motivation, engagement, enjoyment, creativity of students, and improvement of all four language skills (Fragoulis & Tsiplakides, 2009; Jincheng, 2020). Besides, the implementation of PBL in L2 settings can also lead to the improvement of cross-cultural knowledge, social collaboration and communicative skills, expansion of content knowledge, development of critical thinking and problem-solving skills (Thomas, 2000).

What's more is that PBL gives priority to students' choice and respects their desirable project design so that a meaningful type of learning is produced and this perspective follows an experiential learning paradigm of second language learning which can be motivating as well as empowering (Tomlinson, 2012). When instruction is divided into short time frames in PBL, learning tends to increase; however, the traditional teacher-directed model requires a student to focus on teacher's voice for a long period of time. Hartley and Davies (1978) support that the student recall of the content is dramatically reduced when the teacher speaks for a long time. The above researchers recommended that students be engaged in various interactive and engaging activities. Davies (2007) introduced another advantage of PBL as pair work and group work which can greatly reduce the teacher-to-student ratio of speaking time. No wonder, pair work and group work can provide opportunities for the teacher's as well as students' feedback.

Admittedly, PBL advocates deeper learning, but it has continuously faced resistance and criticism by those supporting the use of traditional development of students' knowledge (Huberman, et al., 2014; Ravitch, 2000). Although countless studies have revealed the great benefits of PBL, there are some studies which counted several negative impacts of PBL on language learners such as high anxiety and stress for language learners (Beckett, 2002); low course completion rate (Leki, 2001); and dissatisfaction of international ESL students with heterogeneous groups (Reeves et al., 2018). Moreover, an effective PBL design requires a lot of time due to the collection of materials and information about the projects. Moreover, some students may lack enough interest in their project topic and this can distract their attention from the project.

What's more is that PBL needs hard working teachers dedicated to the projects of their students (Alslanides, et al., 2010). Moreover, it may appear difficult for teachers to accurately figure out and employ a systematic method in practice. In many studies, teachers and researchers

have reservations about PBL success since it necessitates fundamental changes in teachers' planning and preparation (Lee et al., 2014), and found its full implementation difficult in real world (Bradley-Levine et al., 2010; Gary, 2015; Kokotsaki et al., 2016).

Another caveat of PBL is classroom management. It is believed that teachers' function is that of a facilitator in PBL; however, this does not always occur, particularly if the teachers are novice (Doppelt, 2003). Meanwhile, the paradigm shift of conventional modes of teaching demanded teachers to rethink their role in learning. Furthermore, additional professional development is absolutely required for teachers to take new roles in L2 educational settings (Condliffe, 2017).

Missing content is another problem with PBL. In traditional classrooms, teachers follow a specific order to complete a curriculum. With PBL classes, it may be difficult to get the teaching into the schedule as students work on their projects. Moreover, assessment seems quite time-consuming. Students who complete a course using PBL often fail fact-based assessment (Hertzog, 2007). More importantly, as PBL happens in groups, lazy students may take advantage of active students who work and finish the activity. As a result, it is essential to figure out how to make each student responsible all through the process (Alslanides, et al., 2016). Besides, in PBL classes, students' adaptation to their role in student-directed learning can be seriously challenging. As a matter of fact, students need time to get adjusted and feel comfortable with the whole process and their performance (Newell, 2003). Noteworthy to mention is that one can rarely overlook the great merits of PBL as compared to its pitfalls.

### **Related Studies**

A significant body of research has been published to examine the effectiveness of PBL in different educational contexts. Some studies investigated the learners' perspectives of implementing PBL in learning English in L2 contexts and found a significant positive improvement in the students' performance when they used PBL as their teaching approach. These studies also confirmed that PBL could enhance students' motivation (Azman & Shin, 2016; Imtiaz & Asif, 2012; Kavlu, 2015, Wang, 2016). As a more specific instance, Çırak (2006) investigated the effectiveness of PBL in teaching English to Turkish young learners and the results revealed that making projects enhanced the students' proficiency and helped them socialize and share information.

In a mixed-methods study, Pourmandnia et al. (2021) investigated the impact of project-based expressive and referential types of writing instruction on the Iranian EFL learners' writing ability to explore the views of the learners towards implementation of PBL. The quantitative findings showed that project-based expressive and referential types of writing instruction could significantly improve EFL learners' writing skill. Based on the qualitative findings, the participants showed a positive attitude towards the implementation of PBL instruction.

In addition, Aghayani and Hajimohammadi (2019) conducted a study on the role of PBL in promoting Iranian EFL learners' writing skill. They found that PBL had significant impact on the learners' writing ability in a collaborative environment. In an attempt to investigate the effect of PBL on Iranian EFL learners' reading ability and vocabulary achievement in short and long term vocabulary recall, Soleimani et al. (2015) reported a statistically significant progress. They came to the conclusion that Iranian EFL courses could positively impact the reading ability of the learners and speed up their vocabulary achievement.

In a case study on the effect of PBL on vocabulary recall and retention, Shafaei (2011) discussed the key features of PBL in English vocabulary teaching to elementary EFL learners in Iran. This research came up with a significant relationship between using project-based teaching technique in EFL teaching and learners' performance on vocabulary tests even in the delayed post-tests. Ultimately, she concluded that PBL could accelerate vocabulary learning and improve vocabulary recall. Shafaei and Rahim (2015) also conducted research implementing PBL to explore the EFL learners' development of English vocabulary. The results demonstrated that the PBL group performed much better than the traditional group in terms of vocabulary recall and retention. The results of delayed posttest also demonstrated that test scores for both groups decreased dramatically; however, the PBL group still outperformed the control group. In much the same way, Sadeghi et al. (2015) conducted research on the effects of PBL on paragraph writing skills of students. The results of the study indicated that the learners who received instruction through PBL showed an improved performance than the students taught through textbooks. The results supported the significant impact of PBL in enhancing the Iranian EFL students' writing performance. All in all, the previous studies confirmed the effectiveness of PBL in improving learners' language skills.

### Successful Implementation of PBL

The previous research on PBL reveals that the merits of PBL implementation outweigh its drawbacks. In line with the great innovations of the 21<sup>st</sup> century education and in response to the language learners' new demands, it seems that educational systems and stakeholders can rarely overlook the integration of PBL into educational settings. With regard to the unique and comprehensive characteristics of PBL, it seems that the proposed learning model by Mergendoller and Thomas (2005) has enough potentials to meet the needs of the 21<sup>st</sup> century learners. Undoubtedly, a well-defined framework can greatly minimize the challenges of PBL by providing clear structures to the teachers and clarifying different stages and learning objectives. Such a framework can also be beneficial to the students in adjusting to their new roles in PBL (Helle, et al., 2006).

Strictly speaking, Mergendoller and Thomas (2005) interviewed twelve expert teachers who were teacher trainers and had attended in professional conferences. The thematic analysis of the interviews revealed several techniques for the success of PBL.

The first technique for PBL success is time management which focuses on effectively scheduling projects by coordinating them with other teachers in order to be able to hold time lines or extend them. The second technique is about orienting students and asking them think about the project before they start, providing them with a rubric that clarifies what they are required to search for. As the third technique for PBL success, establishing a culture which emphasizes student self-management. This means that the teacher's responsibility is shifted to the students who are actively engaged with the project design and are encouraged to learn how to learn. The next strategy for PBL success, according to Mergendoller and Thomas (2005), is the management of student groups, that is, making proper grouping, encouraging full participation, and monitoring each group's progress. The fifth technique emphasizes working outside the classroom such as other teachers and parents to enhance the possible nature of external partnership. The next technique focuses on the proper implementation of technological resources for the projects to explore relevant websites and to develop the students' critical thinking ability. As the final factor for the success of PBL, assessment of projects receives a great importance. It is suggested that the project evaluation occurs through various assessment methods including individual and group assessment and properly debriefing projects by reflection strategies.



### Conclusion

Despite the widespread use of PBL in many well-developed countries, the educational system of some countries adamantly adheres to the traditional pedagogical approaches. The current problems of learners and teachers in such settings are good indicators that there is an urgent need for a paradigm shift in the way English is taught/learned (Talebinezhad & Aliakbari, 2002). Regarding outdated pedagogical approaches in some EFL situations, there is an essential call for innovative methods which engage language learners more actively, motivate them, and improve their learning outcomes.

Although the implementation of PBL may cause several challenges (Sahli, 2017), planning in advance and collaboration might be helpful in successfully handling them. Since educational settings are quite unique and have their own specifications, more research is required on PBL and its effectiveness on students' learning. Regarding the present literature on the implementation of PBL for teaching English as a foreign language, teachers and researchers can hope for promising results if the adoption of PBL is carefully planned and carried out in different educational settings.

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