Using Project-Based Learning to Develop Life-Long Learning Skills

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Abstract
Recent research shows that teaching learners to maintain positive attitudes and engage in social and political practices is an important educational asset, mainly for schools which adopt project-based learning. To set an efficient background for schools to support students’ understanding of both political and social participation, important preconditions of democratic school culture form effective outcomes to generate ethical behaviors. Today, social and political measures of project-based learning in schools provide important opportunities to engage learners in life-long activities. Thus, the central aim of these measures is to promote the efficiency of decision-making within schools, which shape all classic criteria for both functioning political and social integrity. This paper aims at examining important venues that school leaders wish to implement to foster new ethical participation within and outside school life by adopting project-based learning. It attempts to unravel the timely challenges of such implementation and the different perspectives for the progress of many educational institutions. Hence, the paper adopts a meta-analysis technique, whereby a special examination of the various already conducted studies came out with conclusions: perspectives and challenges. Owing to its generative and diagnostic nature, this method allows the researcher to explore some pitfalls which provide potential opportunities for alternative conclusions to be adopted in well-run approaches. The major conclusions drawn from this paper are to be qualitatively discussed and analyzed.

1. INTRODUCTION
As the demand for the educational sphere to produce professional learners parallels the development of world economics, the rapid growth of the world is increasingly urging this sector to produce more graduates. This requires a huge amount of enthusiasm in the field of instruction. According to Jalinus et al., (2017), “the quick response and appropriate action must be performed by the world of education to produce professional graduates and to prepare excellent human resources in creating innovative products” (p. 251). Today, higher institutions embrace big initiatives of their states to enhance learning outcomes worldwide. Effective learning preludes to successful graduates when the learning process is designed with optimized conditions of quality approaches. Accordingly, Yam and Rossini (2010) assert that learners are the ones who construct meaning through relevant learning activities, which explains the role of the teacher who tends to provide a learning context that supports the learning activities, merely appropriate to achieving the desired learning outcomes.

Recently, teachers around the world, Patton (2012) argues, are designing projects for their students because they develop a shared passion for learning to foster a wide range of
skills which learners need in the class (p. 13). This shows the degree of importance of the implementation of project-based learning (PBL) to enhance students’ achievements of basic learning experience along with their acquirements of the curriculum content. Archetti (2012) claims that many forms of PBL, which essentially consist of ‘roleplaying exercises’, are increasingly being used in the teaching of many ideas, concepts and even issues in education, mostly through simulations (p. 2). These simulations, she concludes, help learners develop a deeper knowledge of the mechanisms of various skills and encourage their interest in topics which were not open to discussion before. Accordingly, many simulations have been achieved with the idea to enhance such learning outcomes, which, in turn, develop their critical thinking. Most of these simulations, however, tend to generate motivational attitudes in classroom activities, and hence, appear very substantial along the process of PBL implementation.

Purpose of the Study

The objective of this study is to examine the introduction of project-based learning in class as an effective method in the educational sphere with a more reflection on the various ways of its incorporation to specifically develop new life skills. A range body of literature review about the styles of its implementation supports the development of a framework that reveals the learning outcomes to bring important political and social life skills and competencies in education.

Research Questions

1. What are the effective ways to better incorporate PBL in the learning process?
2. How do learners develop political and social integrity as new life skills by adopting PBL?
3. What are the most implications of this approach in education?

2. METHODOLOGY

To write this paper, the research has gathered data through a deep study of current topic-related works. It has dealt with a variety of education-linked database to find relevant, peer-reviewed articles, and books. This systematic literature review aims at focusing on ways to develop many life skills by means of implementing PBL with the idea to enhance a model of new learning outcomes that mainly increase the learner satisfaction. As this comprehensive study details the timeframe within which the literature was selected, it is divided into two categories: meta-analysis and meta-synthesis. This study has tried to conduct a meta-analysis research by getting the findings from several studies on the same subject and analyze them using standardized procedures. Patterns and relationships in the meta-analysis, Urquhart (2010) contends, are detected and conclusions are drawn; it is associated with a deductive research approach. On the other hand, meta-synthesis analysis is based on non-statistical techniques, which integrates evaluated and interpreted findings of multiple qualitative research studies. A meta-synthesis literature review, Walsh and Downe (2005) assert, is conducted when following the inductive research approach. As this paper is a meta-synthesis of current scholarly articles, no further ethical considerations are required. However, this method helps in bringing together qualitative data to form a new interpretation of the use of PBL in the school culture, mainly through an explanatory theory of its integration.

3. THE IMPLEMENTATION OF PROJECT-BASED LEARNING IN THE EDUCATIONAL SPHERE

a. Literature Review: PBL Theory, from a Project to a Problem-Class Practice
The implementation of PBL has brought immense changes to the global school by effective leadership programs which tend to enhance and facilitate the organizational role of teachers in schools worldwide. Recently, some studies have suggested an approach that addresses the methodological changes in the school as a whole, where PBL, Martínez (2019) maintains, is more likely to be effective when the principles of the approach are consistent with how the school and the educational system operate and are organized (p. 19). Martínez, here, stresses the important role school leadership plays in creating spaces so that teachers can coordinate and help each other evaluate the students formatively, where the school administration counteracts the everyday difficulties that the teaching staff encounters. To adopt any successful method in the learning cycle, El Bakkali (2020) asserts that effective leadership in education urges new forms of learning categories with the objective to highlight high performance in the teaching/learning sphere by building up enough space for learners to better interact with larger social and organizational contexts in which they construct global communication (p. 9). Thus, PBL develops students’ motivation in learning effectively by means of increasing academic achievements in the classroom along with the instructional strategies and procedures that enhance deep content understanding (Goodman and Stivers, 2010). This understanding which educational practitioners seek to incorporate with PBL differentiates the latter from more traditional forms of education. Harris (2015) asserts that this kind of activity separates students from a controlled, single-student focused learning to one that is group-focused, substantial, dynamic and collaborative, as being the source of all project-based activities whether they are in or outside the classroom (p. 25). Although many learners experience difficulties in starting the projects and leading them autonomously, there is a successfully direct instruction by developing the project, through which, according to Martínez (2019), the students receive instructions on the knowledge and skills needed to start it (p. 19).

Today, PBL promotes social learning as a student’s practice which becomes essential with the latest skills of communication, negotiation, and collaboration. Aksela and Haatainen (2019) explain that learning responsibility, independence, and discipline are outcomes of PBL that allow students to develop their own interests and pursue deeper active learning processes, styles and preferences:

When we implement PBL, they comment, “we allow children to discover who they are as learners. It is important for the teacher to confer with students regularly to ensure that students are on track and developing their ideas and skills fully. These skills are critical for future success in both school and life (p. 11).

PBL, which, Aksela and Haatainen (2019) continue, stands as a tool to engage students in real-world projects that deepen their learning, promotes links among subject matter disciplines and presents an expanded, rather than a narrow view of the subject matter. Along with this approach, projects, which are described by Blumenfeld et al., (1991) as adaptable to different types of learners and learning situations, are learning activities and real tasks that have brought challenges for students to solve and which generally reflect the types of learning and work people do in the everyday world outside the classroom. The most important aspects of these activities are the ones that are done collectively while working toward a common goal, where important skills allow students to be able to function like adults in society. These skills, Goodman and Stivers (2010) contend, include communication and presentation skills, organization and time management skills, research and inquiry skills, self-assessment and reflection skills, group participation and leadership skills, and critical thinking. For them, and as performance is valued individually, taking into account...
consideration the significant results, mainly the understanding of content and skills, PBL is deemed to allow students to reflect upon their own ideas and opinions, and make decisions that affect project outcomes and the learning process in general, wherein the final product results in high quality, authentic products and presentations.

b. The Effect of Project-Based Learning Strategy on Self-Directed Learning Skills

The use of PBL in promoting self-directed learning skills reveals different learning experiences that improve students’ motivations through concentrating on learning tasks which help them connect new content with their prior knowledge, and perform cooperative learning activities efficiently with the objective to enable them to manage conflict and interact within the group. Through such incorporation of PBL, instructors provide solutions to complex situations through the availability of materials and contents to seek the effective learning of other skills and methods. Martinez (2019) finds out that PBL can be an effective methodology for teaching complex processes such as planning, problem-solving, decision-making, critical thinking and creativity (p. 13). He maintains that through this method, many experiments on collaborative work skills use computer works well, while some others show a possible positive effect on students’ collaborative and self-regulatory skills.

The achievement of students’ self-directed learning skills is maintained through effective and motivational aspects of learning in which PBL is related to a positive effect on student satisfaction with the teaching experience, where evidence, Martinez (2019) contends, is mixed with regard to the effects on their motivation for learning involvement (p. 12). He also asserts that through these skills, students generally show positive attitudes towards this methodology, which leads them to judge it as more effective than traditional methodologies. This perception, he continues, is probably related to some effects because when PBL is used students can develop a better view of science and better expectations of pursuing a scientific career, a better self-image and improved perception of their self-efficacy; that is, when the impact of PBL on students’ intrinsic motivation and involvement in learning is measured, the results are less conclusive (p. 13).

Along with this, Thuan (2018) asserts that student-centered learning skills, whereby students plan, complete and present the task through the implementation of PBL, emphasizes the quality of globalized professionals in education and other spheres (p. 330). This approach highlights learners’ abilities in challenging questions, problems, or topics of student’s interest which mainly becomes the center of the project and the learning process, where frequent feedback from peers and facilitators constitutes an opportunity to share resources, ideas and expertise. In this regard, and as Martinez (2019) assumes, when the impact of PBL on students’ intrinsic motivation and involvement in learning is measured, the results are conclusive, especially with their attendance and completion of the programs (p.13). That is, the use of efforts in connecting ideas and acquiring new skills during different stages of PBL, Thuan (2018) notes, enhances a collaborative learning environment rather than a competitive one, generating, thus, the use of a variety of skills such as social skills and management skills (p.230). The ability to generate and cope with these skills is to identify and achieve learning goals through the effective use of learning strategies by understanding and reflecting on one’s learning, which is an essential method for students to be self-directed learners.

Self-directed learning skills, achieved through PBL, can also be realized through technological advancements (Razak, Yassin, & Maasum, 2020). Bagheri et al., (2013) reveal that technological experts in education have adopted their expertise in this field, making their roles more significant to both learners and teachers (p.16). Because of that, Surry and Robinson (2001) contend that the main roles of an educational technology graduate, which specifically include a distance learning coordinator, technical support specialist, and instructional technology manager, is to help them undertake their duties with an acceptable
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level of competency. For this, by examining job applications in the area of instructional design and technology, Surry and Robinson (Ibid) highlight the skills and knowledge that graduates should possess with the expectation to have high-level skills in the use of new technologies. According to Bagheri et al., (2013), self-directed learning can develop basic skills that learners need to transfer to provide knowledge and opportunities to learn and develop these skills (p.16). Thus, student-directed learning activities allow them to identify their learning needs to parallel with the activities of inquiry learning that gives specific meaning to professional learning in the context of education. In this regard, the study conducted by Intel Teach Program (2012) asserts that teachers, who use inquiry as a strategy, encourage students to raise questions, plan and carry out investigations, make observations, and reflect on what they have discovered especially that inquiry activities can happen along a continuum, from more structured and teacher-directed to more open-ended and driven by student interest (p.1).

Hence, this study states that it can be good to think of PBL as a matter of inquiry learning because a review of research about PBL concludes that such projects are focused on problems that lead learners to face the central concepts and principles of a discipline. Following this, and according to the same study, learners do not only have a choice when it comes to designing their project, which allows them to pursue their interests and engage their curiosity, but it also provides them with the chance to answer their questions, and investigate topics, not necessarily identified by the teacher as learning goals. As a result, learners gain significant exposure to independent study or student-directed learning activities which can allow them to recognize both their own learning needs and guide their learning process. Some researches, nevertheless, illustrate the shortcomings of traditional teaching methods in terms of equipping students with the requisite skills, showing, thus, the need to stay afloat in the modern world of rapid technological growth. These teaching methods provide students with practical applicability to real-life situations while improving their essential skills.

4. IMPLEMENTING LIFE SKILLS THROUGH PROJECT-BASED LEARNING

As the implementation of PBL is growing fast in teaching development in higher education, the idea of incorporating life skills in this approach grows bigger with the objective to engage academics in a focused process of learning practice as an evidence-based approach that intends to mirror research practices as a means to build teaching capacity (Attard et al., 2010, p. 14). This can be achieved through engaging learners in high-quality learning experiences that occupy the minds of those who are working in higher education in response to a scholarly learning-centered approach to teaching that is entwined with rich student learning (Matthews et al., 2017 p. 598). In describing a classroom where the teacher is using such skills through PBL model effectively, Intel Teach study (2012) asserts, learners disengage with activities where they are able to design the process for reaching a solution or an atmosphere that tolerates changes (p.2). For students accustomed to traditional instruction, this means, this study shows, a transformation from being ordered to carrying out self-directed learning activities, from the knowledge of facts, terms, and content to understanding processes, from listening and reacting to communicating and taking responsibility, from memorizing and repeating to discovering, integrating, and presenting, from theory to application of theory, and from being teacher-dependent to being empowered. These skills are handled, managed, and even achieved in real situations of the projects where the learners’ language skills, creative thinking and content learning can be facilitated (Thuan (2018), p. 332). In this regard, Harris (2015) contends that if in a traditional classroom, the purpose is to deliver to the student the content of a particular course, PBL differs in that it seeks to address

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a central problem using whatever content or skills needed to do so. He claims that this method engages students in skills necessary in the modern workplace and includes skills common in most literature about PBL, such as critical thinking, flexibility, ability to work in groups and think creatively (p. 27). Such skills, Harris (2015) continues, establish a framework that is a holistic set of learning outcomes which learners need in order to be successful citizens in the 21st Century (p. 39).

One of the aspects of PBL in advancing life skills is the online-based projects which encourage students to work on a problem in-depth, rather than covering many topics briefly by being engaged in learning that is needed to solve a problem or complete a project. In this regard, Goodman and Stivers (2010) explain that web projects build learning experiences connected to the kind of learning one does throughout life, rather than only on class subjects. By using the real tools for academic work that are used in the workplace, rather than simple textbook techniques, the two critics maintain that learners easily accept the types of knowledge and skills that exist; that is, finding information and people on the internet gives learners the way to go about acquiring the knowledge they may need. In a well-designed web project, they argue, learners work in a hands-on mode with the physical world by gathering information and data, explore, experiment, and organize information. For them, they have access to people and information from the real world, and they develop a closer relationship to the real-world context of problems and projects, where such connections with such events, and problems could bring relevance to their interest, their intellect, and their participation. In dealing with cooperative learning, they argue that this approach encourages active engagement by the students in learning, and it also builds critical skills needed in today's workplace. Harris (2015) argues that the value of PBL is that it allows for student choice and voice, collaboration, a focus on authentic problems, the opportunity for feedback and revision and opens up the learning environment to different learning styles and interests, which can increase student motivation and satisfaction in the learning process (p. 35). Learners, in a real-world context, can get through people from different places and cultures and can collaborate with them in different contexts and fields.

In dealing with these skills, Martínez (2019) explains that educational innovation arises as an attempt to promote such skills to produce methodologies in which students maintain a passive attitude compared to learning in which PBL is considered a form of learning that encourages students to assume more responsibility for their learning, promote the search and analysis of information and solve real problems (p. 3). Many life skills crop up as a method that seems better suited to fostering skills, such as critical thinking, creativity, and complex problem-solving. In this context, Martinez asserts that PBL is presented as an opportunity to improve students’ learning outcomes, especially in their skill set. He concludes that in recent years, studies have introduced some insight into the possibilities and the real limitations of PBL for improving students’ learning. Along with this, students begin their long road on their discovery of how to be a lifelong learner, by assisting them to develop a more adult style of learning, showing them how to approach problems and challenges involved in the study, and being able to meet challenges at a personal level, by drawing upon a wide range of experience and resources (Yam & Rossini, 2010, p. 6). By providing professional knowledge and skills, learners tend to access more opportunities in various contexts outside the classroom.

c. Adopting Social Integrity as a Soft Skill in Learning

Along with the adaptation of projects that incorporate public integrity in developed professional education, the implementation of similar activities to adopt social integrity has long been such a ground for educational advancement. The impact of social integrity on learners resonates with the development of the whole education sector through a series of
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projects about social activities. Hence, most educators design tasks of social contexts where learners operate tools to implement these layouts of social integrity. If the majority of students, Education for Integrity OECD Project (2018) states, do not see the value of acting to activate such tasks and activities, educators should design their engagement in such a way as to inspire them to act despite such concerns (p. 18). For this reason, the project claims that role models from their age groups, their educators, and/or broader society are critically important; especially useful if role models can find who, in the eyes of the students, have achieved “success” without compromising their integrity. This is because most learners need to feel that their contribution has an impact on their community, their environment, or whatever domain they are involved in.

Social integrity can shape personal and national character through civic education programs. Schulz et al., (2016) state that the global ICCS 2016 study3 found that the majority of surveyed students participating in civic education programs agreed that obeying the law was a crucial characteristic of responsible citizenship behaviour4 (p. 13). This explains that a longitudinal study conducted over 15 years found that adults who had gone to schools that valued civic participation were more likely to demonstrate active civic engagement as adults, including active voting habits and involvement in volunteer work.5 Similarly, another study showed a link between an open classroom environment and future civic behaviour, noting that students whose teachers modeled fairness, respect and tolerance in the classroom were more likely to indicate strong future civic commitments.6 This supports the idea that the development of a curriculum which includes tangible, hands-on initiatives to help students to see the impact of contributing to the integrity of society proves positive. Likewise, other conclusions support the argument that educating learners about integrity has a positive influence on their future civic commitment and behaviour. The effects of education for public integrity on behaviour can be demonstrated systematically to examine its results. To that end, educators consider designing an evaluation framework, with indicators to measure student knowledge and skills relating to integrity throughout their integration in the syllabus and its impact on the learners’ behaviours in the future. The “Education for Integrity OECD Project” (2018) cites possible evaluation approaches to this study (p. 13):

- Applying different measures in attitudes on integrity and anti-corruption between learners who participated in the education for public integrity program and those who did not.
- Applying qualitative and participatory research methods for evaluating the program’s effects on educators’ and students’ value perceptions.
- Using behavioral insights to assess the effects of the education program on short-term behaviour change.

To this end, the OECD Project on “Integrity Education” gives an example of how efficient to bring learners to the local government office to oversee reporting registers and allow them to apply their knowledge and skills to see the impact of their integrity activities (p. 18). Accordingly, a related point of such social integrity asserts that teachers should be wary of over-relying on conducting simulations, such as mock elections for a favorite color where students have no real stake in the outcome. Nevertheless, the OECD Project on Education for Integrity Teaching contends that to help make complex integrity concepts

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6 Flanagan et al., 2007 cited in Ibid.
relatable to students, educators may wish to use supporting materials, such as short stories and longer descriptive and analytical pieces, as well as audio-visual content (p. 18). For example, the project asserts, novels or short stories that explore values like honesty, justice, integrity or fairness can help students reflect on how these values impact the characters and their society, where these text-based materials could be ones which already exist in the curriculum, and used to introduce discussions on public integrity concepts, or could be new ones that educators introduce to students. Similarly, it shows that films, TV shows and YouTube videos can be used to explore issues like corruption and its impact on ordinary people, or highlight how integrity actions can change society. It, accordingly, concludes that using materials that include scenarios and situations students already understand can enhance comprehension and support students in forming value positions around the topics.

d. Integrating Political Integrity in Life-Long Learning

Political integrity is also one of the facets of activities based on projects in the development of the education sphere through pedagogical experiences which provide a wealth of knowledge and skills to learners. These learning outcomes are designed through activities to prepare future leaders in the political sphere, showing values and their effectiveness in the school system. Today, learners need to understand how political issues are endorsed in and outside classroom tasks with the idea to analyse and identify their impact on their surroundings by means of understanding and dealing with political concepts, rather than just knowing them as abstract terms. To this, educators consider introducing activities based on political integrity in the classroom through training, which requires skills, knowledge and confidence to tackle contemporary political issues. Accordingly, the OECD Project on “Education for Integrity Teaching” (2018) shows that training should therefore be a core component of any program for education about integrity; that training, which takes many forms, ranging from courses taken during teacher trainee programmes or in-service training, to seminars and resources prepared by government institutions or civil society actors, can ensure that educators have the appropriate knowledge to teach about integrity and anti-corruption (p. 12). These politically oriented activities, based on projects, Archetti (2012) asserts, have positive effects on students’ learning, particularly on their critical thinking skills which are relevant to the teaching of some political subjects (p. 3). The latter, he continues, in its broadest definition, deals with the effects of communication on political and social processes although many controversial and contradictory claims are made about this topic and, in principle, they do not sound plausible until they are actually tested. Once again, the OECD Project on “Education for Integrity Teaching” shows that in many countries, given the curriculum’s importance as a transmitter of values, where reform can constitute a political issue from which disagreement can arise between different partners, the development of new curricula is a thoughtful and methodical process, including the legislative branch, content experts, government education officials, educators and, in some cases, unions and parent groups (p.10). Accordingly, stakeholders such as political groups may hold different views on what sorts of values learners should be taught, just as education leaders decide to educate youth about political issues, the exact vehicle through which education for public integrity will be delivered varies and depends on several factors. To facilitate such an engagement, the study contends, educators wish to identify tools to reassure such relevant integrity with a working group that consists of individuals who have experience in designing curricula, and who could provide pedagogical feedback on the types of materials produced. Along with such integration, the study maintains that educational training on this approach is important as it addresses ethical and moral questions. It also states that studies have found that improving educators’ ethical and moral reasoning skills can be achieved in part through courses that incorporate abstract and theoretical contents and that encourage
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teachers to stretch themselves cognitively through critical reflection. The study states that educators with higher levels of ethical and moral reasoning tend to have heightened awareness of their own ethical and moral responsibilities; this can support them in addressing issues like classroom fairness, distribution of resources, due process and classroom discipline. Along the same course of the project analysis, it is articulated that as educators may be trained in the use of interactive methodologies, materials that encourage interaction between students have the potential to create classroom management difficulties; this reason, educators receive training on how to manage activities that rely on classroom interactions and debate between students and the development of critical thinking skills.

Along with the incorporation of political integrity in the learning cycle, communication technologies crop up as important factors in the implementation of projects. Archetti (2012) asserts that what learners gain in political communication tends to have a limited shelf-life in a critical skills’ context (p. 4). She argues that because communication technologies evolve so quickly, what is supposedly learned today about their impact on political and social processes may become outdated later. She gives an example about the crucial role that social media, like Facebook, had on the fundraising of the Obama presidential campaign in the United States in 2008; just 4 years earlier, social media had no significant role in the George Bush versus John Kerry electoral race. She contends that the purpose of such learning in this context is to enable students to understand such a constantly changing environment, and if they learn how to make sense of it rather than being able to describe how it is, then they will be able to apply their knowledge and skills far beyond the completion of their degrees to interpret future developments. Another example that Archetti (Ibid) gives here is about media coverage of the issue of terrorism as a result of a learning task. She argues that the existing literature about terrorism and the media is mostly written by terrorism experts who do not have a background in communication or media studies, and while they can write authoritatively about terrorism, many of their claims about the role of the media are generalized common sense and often based on anecdotal evidence. It is, she asserts, important for the students of the course “Terrorism and the Media”, for example, to be able to think critically and to evaluate whether enough scientifically collected evidence supports the claims they find in the literature.

5. RECOMMENDATIONS AND IMPLICATIONS

This paper has discussed a number of conclusions that are worth mentioning in this section. First, the success of PBL is primarily determined by the essential role of the teacher who has to be aware of the course objectives and their possible benefits for life-long learning. In this case, real-situational tasks of PBL tend to train learners to become autonomous with bare minimum attention to the teachers’ major role in canalizing knowledge, planning classroom learning outcomes, and developing a positive learning atmosphere through thriving positive teacher-student harmony. Second, with the implementation of PBL, teachers tend to give some feedback on the process and product of the learning outcome, mainly focusing on students’ work. Third, time seems to be a major element in this implementation and determines the success or failure of the achievements of tasks, with considerable regards to limiting the time allotted for submitting them. Finally, the implementation of PBL appears more successful with establishing a collaborative and interactive environment with the idea to transfer their learned knowledge to their professional life.

Based on constructivist characteristics, the incorporation of PBL allows teachers to introduce their perceptions and beliefs on how optimal learning can be achieved through

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many benefits. This method is mainly meant to allow learners to develop higher-order thinking skills by using their knowledge construction which targets multiple perspectives through the production of authentic artifacts. This also shows the way teachers develop their teaching model by reflecting their teaching philosophy through their conception and beliefs. Similarly, the integration of PBL has developed learners’ academic achievements through their satisfaction as evidence of a deeper understanding of the project process. Hence, learners usually appear with other advantages by their engagements in projects through materials which raise their motivation and develop a wide range of qualities along with their knowledge acquisition. The implementation of this method has also shown students’ admiration to attending all classes with such motivation, which mainly develops their positive respect for staff, and also shows the expectations of their performance, attitude, and effort. Along with this, learners tend to accept responsibility for their results and learning outcomes although tasks might appear challenging and time-consuming. Since one of the objectives of the introduction of PBL has been to enhance teachers’ professionalism and collaboration and to increase learners’ self-reliance and improved attitudes towards learning, the major concern for this method has been to help students acquire in-depth content knowledge, skills and feelings of commitment and considerable responsibility for their learning.

Along with this, there are some limitations to the implementation of the PBL which can be summed up as follows. Teachers are not fully knowledgeable about the systematic incorporation of this approach although they tend to implement it to the best of their abilities without professional development of its constructivist nature. Also, this failure might be due to the lack of in-depth exposure to the processing of different stages or even where PBL can be approached on the continuum of the learning process. Moreover, teachers’ use of PBL, Tamim and Grant (2011) contend, may reflect their comfort level in creating a balance between curriculum and testing needs, on one hand, and their aspirations towards employing constructivist strategies, on the other hand. An important question which they pose here is whether all teachers should be encouraged to become initiators or whether PBL could be implemented effectively in any of these uses. Moreover, can PBL use be regarded on a continuum starting from reinforcement of learning ending the initiation of learning? To answer this question, Tamim and Grant (2011) bring Thomas (2000) who states that for a project to be considered a PBL activity, it should be central and not peripheral to the curriculum, where students struggle with the concepts of a discipline, and where they construct and transform new skills and understandings. Another problem deals with teachers’ resistance to student-driven learning. That is, most teachers often see this as giving up control of the class. Hence, teachers with little practice on PBL are more prone to resist students’ self-determination on learning. To this, Aksela and Haatainen (2019) stress other barriers through which the implementation of PBL may render teachers unable to motivate learners to work in collaborative teams, especially employing critical thinking. Another problem is the time slot allotted for the implementation of PBL. Along granting learners sufficient autonomy and understanding of the different processes of this approach, the fear to run short of time rises as the main problem. Hence, teachers are reported to have insufficient time to successfully plan a significant flow for their projects.

6. CONCLUSION

Along with the analysis of the implementation of PBL, it is indispensable to understand the advantages and challenges that can be designed in practice in order to

determine the various forms of support for teachers. This approach brings substantial changes to the teachers’ way of approaching contemporary projects which trigger their thinking about designing classroom structures, activities, and tasks. As a conclusion, it is also assumed that in-service training for teachers is significantly important to support their pedagogical content knowledge in PBL. Accordingly, El Bakkali (2020) assumes that pedagogical actors should contribute to the success of learning outcomes, wherein its achievements highlight the effectiveness of school culture. In this context, educational leaders should develop a ground for the school system to effectively hone this method. Additionally, they should introduce relevant activities to turn this project a success with essential program designs that profoundly respond to the teacher’s vision and creativity. Also, there is a need to collaborate on interactive learning as part of a community reaching beyond the limits of the school. Also, teachers’ pedagogical development should be highlighted while working with students and other colleagues. It is also understood that learning is shared through workshops for better projects as well as teaching practices. Because it takes time to learn to use PBL in practice, it is indispensable for teachers to shift their understanding and teaching practices into a learner-centered approach. Also, there is a need for developing long-term or even continuous and collaborative models for teacher/learner harmony. Also, to engage more teachers in the use of PBL in the future, more programs that include pre-service teacher training should be adopted, and more research is also needed to understand novice teachers’ use of PBL.

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