American Journal of Multidisciplinary Research & Development (AJMRD)
Volume 2, Issue 9 (September- 2020), PP 01-08
ISSN: 2360-821X
www.ajmrd.com

Research Paper **Open Access**

Integrating New Life Skills as Learning Outcomes in Education through the Use of Project-Based Learning.

Abdelaaziz El Bakkali, PhD
Professor of Language and Cultural Studies, Psychological, Social, and Cultural Studies Laboratory, School of Arts and Humanities, University of Sidi Mohamed Ben Abdullah, Fes, Morocco.

ABSTRACT:- Recently, there has been a tremendous increase in adopting projects and new approaches in the learning process as a way to develop educational layers worldwide. Project-based learning has been found at the center of these new approaches. As this has gained popularity in the educational sphere, many schools view this methodology as a tool to develop students learning and promote their competencies through the exploration, creation and the construction of solutions to problems. Today, using project-based learning in schools to engage learners in life-long activities is a significantly important opportunity to develop new skills. A central aim of these skills, here, is to promote the efficiency of the twenty first century leaders within schools, which shape all classic criteria for public integrity. This paper aims at examining important venues that many schools wish to incorporate to develop new attitudes within and outside school life by adopting project-based learning. It attempts to show the challenges of such implementation and the way life skills are progressed. Hence, the paper adopts a meta-analysis technique, whereby a special examination of the various already conducted studies came out with conclusions. Because of its diagnostic nature, this method allows the researcher to explore some pitfalls which provide potential opportunities of alternative conclusions to be adopted in structured approaches. The major conclusions drawn from this paper are to be deeply and qualitatively discussed and analyzed.

Keywords: project-based learning, education, public integrity, life skills, meta-synthesis,

I. INTRODUCTION

Recent research shows that working with projects through the latest approaches is a new trend to develop learning styles in education. Project-based learning (PBL), which has covered a considerable ground in the field, has long been recognized as an effective method that has provided learners with more space for creativity. Thuan (2018) maintains that a great number of studies on this approach, which has been acknowledged to be effective and fruitful in the 21st century education, has been carried out on the global scale because learners all over the world gain knowledge and skills by experiencing and solving real world problems (p. 327). He contends that learners have the opportunity to construct knowledge by generating their projects based on their interests and individual differences by connecting both their new knowledge and their existing one and are able to apply them to similar settings, mostly in a meaningful context. To this, Martínez (2019) argues that PBL has been fit to all effective learning contexts and practices, and mostly incorporated into language education along with a constructed interest in student-centered learning, collaborative learning, and autonomous learning. Hence, Jalinus, Nabawi, and Mardin (2017) assert that the innovative learning models can direct learners to create successful projects and activities which basically they need to become more involved in their own learning process. This learning involvement, El Bakkali (2020) assumes, generates a leadership style in their learning outcomes. Thus, adopting this method with such style promotes the learners' attitudes and, more importantly, their way of thinking.

The integration of PBL in school curriculum has long been marked as a revolutionary method in education to formally foreground a teaching/learning strategy that fosters the role of both the learner and the teacher. This method, a study conducted by Intel Teach Program (2012) argues, has gained a considerably relevant position in the classroom just as researchers in the field have documented what teachers have long understood; that is, learners become more engaged in learning when they have enough space to dig into challenging, and difficult problems that closely resemble real life. This study claims that learners' abilities to acquire new understanding are enhanced when they are "connected to meaningful problem-solving activities, and when students are helped to understand why, when, and how those facts and skills are relevant." To this, and according to Yam and Rossini (2010), learners construct knowledge through their own activities, mainly on what they already know, where active learning is crucial in the construction of learning. Accordingly, they

assert that PBL is a teaching approach that disengages learners' participation in the learning process to construct their knowledge in an active learning environment (p. 3). However, and as a substantial element in this approach, teachers, Aksela and Haatainen (2019) maintain, tend to construct a unique instructional mode, relying mostly on their own and, to a bare minimum, on the guidance of texts, or resource materials, which allows them to cope with its advantages to advance active, motivated ways to develop new teaching styles (p.10).

Purpose

The objective of this study is to analyze the progression stages of life skills through the implementation of project-based learning in class as an efficient method in the educational sector. To this, a body of literature review about the various ways and styles of its incorporation will develop a framework that reveals the learning outcomes to bring important public integrity skills and competences as life-long learning outcomes in the educational sphere.

Research Questions

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

II. METHODOLOGY

Writing this paper is gathering data through a substantial study of relevant related works by working on a different education-linked database to dig for appropriate, peer-reviewed articles and books. This systematic literature review tends to focus on how to develop life skills through the use of project-based learning with a central aim to enhance a new style of generating new learning outcomes. As the objective of this study is to increase the learner's satisfaction by adopting this method, this comprehensive study frames a selected literature which can be categorized within the frames of meta-analysis and meta-synthesis. I have intended to conduct a meta-analysis method by getting the findings from different works on the same subject and analyze them using standardized procedures. Urquhart (2010) argues that patterns and relationships in the meta-analysis are detected through conclusions and associated with a deductive research approach. Meta-synthesis, on the other hand, is based on non-statistical techniques, which integrates evaluated and interpreted findings of multiple qualitative research studies. Along with this, Walsh and Downe (2005) assert that a meta-synthesis literature review is conducted when following the inductive research approach. This paper, thus, is a meta-synthesis of current scholarly articles, where no further ethical considerations are required. Yet, this method helps in bringing together qualitative data to frame new interpretations of the incorporation of PBL in the modern school culture as a new style of educational leadership, mainly through an explanatory theory of its integration.

1. Literature Review: Adopting PBL as an Effective Classroom Practice

A quick look into the history of PBL can trace an immensely bulky literature that has long considered this approach as a new strategy that has actively engaged learners with issues and topics that are relevant to their lives. Yam and Rossini (2010) claim that the outburst of PBL came about as a matter that requires students to construct knowledge with their own activities, building on what they already understand and not a way of teacher's transmitting knowledge (p.4.). This comprehensive learning approach to classroom teaching and learning, for them, engages learners in the investigation of real problems because it involves both the problem and its solution through a variety of educational activities (p.4). Harris (2015) uses John Dewey, who advanced the impact of experience on learning in Experience and Education (1938), to foreground the impact of experience on a child's education as foundational to the formation of PBL, which has long focused on a theory of experience that challenged both traditional and progressive forms of education (p.15). He states that this structure was foregrounded upon two principles, which he calls the continuity that was structured on all experiences to carry future experiences (p.14). These principles, he continues, become the framework upon which the educator makes judgments as to the value of an educational experience, where the educator has to ensure that the surroundings are conducive to moving the experience forward. In short, to Dewey's approach, PBL would challenge traditional education which is, unlike modern system, plagued with excessive individualism and spontaneity (p. 15). Considered as a new approach in the process of teaching-learning, PBL, Bagheri, et.al (2013) maintain, is based on certain paradigms that motivate the learners to do research, leading to problem-solving and meaningful activities, providing learners with enough experiences which fuse their previous knowledge and the learnt one in a natural and real-life situation (p.18). They add that the content materials in this approach is meaningful to the students since they have been taken from their daily life and the real world around them. As a matter of fact, learners are involved in solving problems through various activities to facilitate more permanent cognitive retention of the subject matter.

The literary flow of the implementation of PBL in education has long considered tasks and activities solving as triggering learners' challenging questions or problems with the idea to give them the opportunity to work independently within a time slot. Thuan (2018) argues that what has basically constituted this method is the kind of projects that mostly involve learners in considering problem-solving, decision making, and instigating activities over extended periods of time (p.329). The advancements of these activities, which extend tasks with language skills, he maintains, "combine in working towards an agreed goal and may include the following: planning, the gathering of information through reading, listening, interviewing, and observing; group discussion of information; problem solving; oral and written reporting; and displaying." (p. 329) Following this, PBL has maintained a strong philosophy for such convenient flexibilities and possibilities for mere application in education practice and can contribute to a variety of research and advanced tasks. Through these tasks the learners seek to figure out solutions for queries while thinking deeply on data that is collected, interpreted, predicted, and evaluated. Along with this, Bagheri, et.al (2013) claim that the most important thing for PBL is focusing on the act of performing more than focusing on learning because learners learn by discovering, performing, and innovating (p. 18). For them, the teaching-learning cycle is more planned through creative and constructive activities other than stagnant memorized tasks because PBL "could foreseeably ensure more effective result by allowing students to actively participate in the learning process and allowing them to produce something in collaboration with others." In this regards, Helle, Tynjälä, and Olkinuora (2006) use the Vygotskyan argument[1] for collaborative learning through which this process takes place primarily on the social, interpsychological plane, and then on the intrapsychological plane when a learner internalizes what has first been experienced in social interaction (p. 296). They contend that the concept about the ideal state for learning is what Vygotsky called the zone of proximal development, which mainly refers to the distance between the learner's actual state of development determined by independent problem-solving and the potential level of development that he or she can reach through the guidance of adults or collaboration with peers (p. 297) Finally, Learners' social interactions can be achieved with high degree of success in a way better than a learning that centers on their own.

2. The Implementation of Project-Based Learning in the Educational Sphere.

The implementation of PBL is successfully maintained by political and educational leadership which supports schools' advancements. This can occur only if conditions and infrastructures including curriculum, structured spaces and other important elements, where the teacher occupies **a** considerable position, are well established and structured. The teacher, here, fosters his/her experience to manage this approach and to manipulate the shift from teaching centered on the teacher to one focused on the learner. Martínez (2019) argues that the implementation of PBL is well suited with an evaluated teacher system where the success of the programs is made easier and when the school's inspections as well as the external evaluations of learners are set as a priority; that is, "the use of external evaluations that place too much value on curricular content and that do not work on skills typically promoted by PBL can inhibit the authentic use of project-based instruction" (p. 20). Hence, the teacher's contribution to the successful implementation of PBL yields to beneficial consequences. Among these consequences, Aksela and Haatainen (2019) argue, professionalism and collaboration are enhanced on the part of teachers which increase attendance, self-reliance, and improve attitudes towards learning on the part of students, just as the common goal for PBL has been to help them acquire deeper content knowledge, skills as well as feelings of commitment and ownership of their learning (p.11). Teachers, accordingly, should adopt common strategies to develop student-driven learning where their teaching style is prone to value inquiry-based learning and other hands-on activities with the idea to motivate learners to work in collaborative teams. Yam and Rossini (2010) argue that in order that teachers must be supported by the management in creating this type of learning tasks, it is important that projects should be designed to sustain student motivation (p.5). In this context, teachers, may propose a number of factors to be considered in project design to make sure the intended outcome is attainable by enabling learners to find the project to be interesting and worth doing and get their competence to complete the project, and focus on learning rather than on grades. Thus, PBL appears feasible and manageable for both teachers and students. However, and according to Harris (2015), the best way to understand how the role of the student changes in this approach is to understand how the role of the teacher changes because the teacher's role moves from content-deliverer to content-guide, and from lecturer to facilitator (p. 26). On the other hand, the teacher's roles could be challenged as students can make choices on how to approach a problem, or identify what the driving question would be. Thus, the quality of the implementation of projects in such learning process necessitates a mere collaboration with the learners' specificities.

[1] Cited in Helle, L., Tynjälä, P., & Olkinuora, E. (2006). Project-based learning in post-secondary education–theory, practice and rubber sling shots. *Higher education*, 51(2), 287-314.

2.1. Implementing Life Skills through Project-Based Learning

The implementation of PBL to develop life skills encompasses engaging students in high quality learning experiences, which occupies a considerable space in today's education. Engaging learners in professional development activities that build, nurture, and sustain their learning practices is highly maintained through project based instructions. Matthews, Marquis and Healey (2017) argue that there is a general consensus that a scholarly, learning-centred approach to teaching is entwined with rich student learning (598). This idea extends beyond traditional capacities that emphasized on making the teacher as the center of the whole process. This, on the contrary, Harris (2015) maintains, creates a framework that is really a holistic set of learning outcomes, mainly skills and knowledge that learners need in order to be successful citizens in today's education (p.39). However, for Jalinus, Nabawi, and Mardin (2017), this stands as an opportunity for learners to learn in constructivist ways in getting cognitive competences as a whole through the project task from the real problems (p.252). By considering PBL as a constructivist pedagogy that intends to bring about deep learning by means of allowing the learner to use an inquiry-based approach with the aim to engage with issues and questions that are relevant to the topic being studied, these authors claim that this approach has roots in constructivist learning and discovery-based methods, both of which rely on the inquiry process and students' ability to devise solutions based on their individual perspective and thinking. By stating so, they mean to put the learners at the learning process, allowing them to improve their competences because most of tasks tend to be lifted from the real problems with the idea to provide opportunities for them to improve their ability and understand the implementation of the competence that is being studied. As a result of such implementation learners build up a deep learning of qualities that help them understand new contexts in the real world.

As PBL aims to foster life skills by learning how to learn complex problem solving, this method rises up with educational innovation which attempt to promote critical and creative competences in which students maintain positive attitudes while learning. This approach, Martínez (2019) contends, caters for a form of learning that encourages students to assume more responsibility for their learning, promoting the search and analysis of information and solving real problems, while delving deep in content linked to their personal interest (p.3). If this is presented as an opportunity to improve students' learning outcomes, especially in their life skills, an urge to improve the learner's behaviors and attitudes has been placed top priority. Many of these skills, Harris (2015) maintains, tend to engage the learners in skills necessary in the modern workplace which basically include competencies such as critical thinking, flexibility, ability to work in groups, think creatively which provide them with the opportunity to outburst their capacities in real world (p.28). Therefore, Martínez introduces language skills as mere life skills that can help learners face the outside world with enough knowledge through the implementation of PBL and its effects on the learners (p.14). He claims that because teachers in languages and social sciences feel that their contents require less sequencing, which makes it easier to have a more flexible approach during project work, the areas of knowledge are more effective.

The development of life skills through the implementation of PBL disengages modern school experience which, according to Intel (2003), a study conducted by Intel Teach Program (2012), generates a full transformation from traditional orders to carrying out self-directed learning activities; from memorizing and repeating to discovering, and presenting; from knowledge of facts to understanding processes; from listening to communicating; from a dependent teacher to an empowered one (p. 2). This study maintains that the advancement of such skills through PBL can only be achieved through an atmosphere that tolerates learners' error and changes through making their own decisions with a framework before designing the process for reaching a solution. This professional development of life skills requires also a process to reflect on the activities for a mere evaluation of its quality. Along with this, Goodman and Stivers (2010) contend that life skills can be generated through effective online tasks by encouraging learners to work on a problem in depth, rather than covering many topics briefly. For them, learners, at this stage, engage in learning what is needed to solve a problem or complete a project. Similarly, web tasks, they argue, build learning experiences connected to the kind of learning one that does throughout life, rather than only on school subjects by using real tools for practical tasks that are used in the workplace and not theoretical textbook techniques, where learners normally become close to the kinds of knowledge that exist. Getting information on the internet, they explain, gives learners the knowledge of how to acquire the knowledge they may need. One of the effective ways to generate life skills, for them, is the active learning in which this process is well acted by means of doing. Accordingly, learners access information from the real world, and tend to develop a closer relationship to the real-world context of problems and projects, which brings a relevant connection that involves their interest, their intellect, and their participation. The last strategy that Goodman and Stivers address as a way to develop life skills is through cooperative learning in which learning encourages active engagement by the students in learning, and it also builds critical skills needed in today's workplace. They believe that online projects increase the audience and opportunity for cooperative learning by involving and communicating with a wide selection of people around the world, where learners work directly with people from other places and cultures, and collaborate not only with peers, but with experts in a large number of other fields.

2.2. Adopting Public Integrity as a Life Skill through the Use of PBL

Today, the development of education worldwide requires public support which responds to some governmental measures by giving weight primarily to public integrity as one of the life skills of project based tasks. A study conducted by OECD[2] shows that such education can be found either within the school system or through tools offered independently of the school system through public integrity as one of the key tools that can be leveraged to cultivate a culture of integrity in education (13). To this end, public integrity crops up as one of the educational projects that sparkles for a whole generation of learners to adopt new approaches of new skills. What is this approach to educational development, then? Public integrity, this study shows, refers to the consistent alignment of shared ethical values, principles and norms for upholding the public interest over private interests in the public sector which implies that the acts of all members of society reflect a set of relevant values that place the public good over private gain (p. 9). Another study by the same organization under the theme "Education for Integrity Teaching on Anti-Corruption, Values and the Rule of Law" shows that public integrity means doing the right thing, even when no one is watching, where most societies pass on values and norms related to public integrity through school, community and family life (p. 77). Accordingly, when corruption and unethical behaviour seem normal, this study maintains, the outcomes of public integrity might not be approachably promising or even missing. But, as schools choose to educate public integrity, public good is emphasized over private gain and complex problems are dealt with by institutions in an ethical and principled manner.

Public integrity upholds learners as valued, active participants who can be mere practitioners in the design of educational projects and the more they take the lead, the more sustainable and successful the project will be. To this, the first study maintains, education about public integrity is as much about building ethical character as it is about equipping students with specific knowledge and skills to advance their society with an aim to cultivate lifelong values for integrity as well as encouraging young citizens to accept their roles and responsibilities for public integrity (p. 13). To achieve this, it asserts, education about public integrity draws on concepts and teaching methods from both values education (e.g. ethics, moral or character) and citizenship education (e.g. civics, political, social), where values education focuses on instilling the good character within students and equipping them with the knowledge and skills to be informed, actively committed, and critically reflective about the values in their society. The study adds, it goes beyond simply disseminating knowledge on values, and aims to give students the tools to understand the principles and procedures involved in making ethical decisions. Because as the old maxim says "values are caught not taught", it is not enough to simply tell citizens what "good" values are and that they must follow them (p. 14). With public integrity, results show big influence that drives public decision making, which, in turn, leads to greater societal development.

Building a culture of integrity in society, the second underlined OECD study asserts, necessarily begins with the education of young people because the knowledge, skills and behaviours they acquire would shape the future of their country, and assist them uphold public integrity, which is essential to prevent corruption; similarly, any recommendation on public integrity should call on countries to raise awareness of its benefits, carry out related education initiatives wherever appropriate and reduce tolerance of violations of its standards (p. 9). However, and as discussed in the second OECD study, it is an obvious implication for education about public integrity that if teachers are not trained in participatory and interactive methods, then resources need to be committed to in-service training in this methodology (p. 36). Although it is clear, in this study, that without a shift to participatory and skills focused methods from traditional content focused methods the net effect is little; it is worth bearing in mind that even with in-service teacher training, change in teaching practice is slow, meaning that teachers may take several years to integrate and implement new methods into their teaching properly. Ultimately, it contends that this is especially the case of existing expectations about how a teacher should teach and the role of students is heavily prescribed by both the ministry of education and society in general. In other words, little change can be expected in teaching practice, and even if training occurs, there are hindrances for teachers to use interactive methods. It is obvious that as the educational system is critical to inspiring norms for public integrity at an early age, the learning procedures which have a direct relevance to students' daily lives are direct responses about public practices to people's daily experience.

Back to OECD study on "Education for Integrity Teaching on Anti-Corruption, Values and the Rule of Law" it is claimed that there is a tremendous shift around the world that involves governments using their

[2] In 2016, the OECD, Greece and the European Commission launched a project to increase integrity and reduce corruption in Greece through technical empowerment of the Greek authorities for the implementation of the NCAP. The project was completed in January 2018. Feasibility Study on Integrity Education in Greece Greece-OECD Project: Technical Support on Anti-Corruption. Retrieved from www.oecd.org

educational systems to communicate to learners the roles and responsibilities of public integrity through school curriculum which should engage young people in an ongoing dialogue and exploration about how they as citizens can protect public integrity (p. 9). Public integrity should be primarily set at the top priority of educational reform through engaging learners in projects that address public affairs by means of implementing and integrating skills, and also applying tasks on public integrity. Also, through extracurricular activities, this approach can get insights especially through the use of technological tools using materials and resources which aim to provide a reference for educational leaders to advance public integrity. To this end, education for public integrity is almost concerned with public practices that allow learners to be equipped with knowledge and skills to persist in a globalized world.

The incorporation of various activities and tasks on integrity into the school curriculum and extracurricular school programs is a growing global phenomenon, which allows for an initial overview of good practices. These programs offer a whole range of cultural contexts which determine the good practices of public integrity. Hence, the 2018 OECD Project shows, as education about public integrity can be applied to what students have learnt in various classes, the risk of becoming boring is just presented as knowledge to be memorized by repetition; instead, teachers can create simulations where learners themselves are decision makers, which, in turn, can help education about public integrity to be both instructive, and memorable (p. 16). To this, this project asserts, by laying down foundations repeatedly during the period of compulsory education, educators can lay the foundations of value systems that later build confidence in how to uphold public integrity, as well as trust in the understanding of the institutions and their processes that protect public integrity.

III. RECOMMENDATIONS AND IMPLICATIONS

The results of this paper has yielded 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 objectives of the course and its possible benefits for the life-long learners. In this case, real situational tasks of PBL tend to train learners to become autonomous learners with a bare minimum attention to the teachers' major role in canalizing knowledge, planning classroom learning outcomes, and developing a positive learning atmosphere through developing 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 collaborative and interactive environment with the idea to transfer their learned knowledge to their professional life.

Based on constructivist characteristics, PBL incorporation allows teachers to introduce their perceptions and beliefs on how optimal learning can be achieved through many benefits that this method can bring to the learning process. This method is mainly meant to allow students to get higher order thinking skills by using their knowledge construction which target multiple perspectives through the production of authentic artifacts. This also shows the way teachers develop this teaching model by reflecting their teaching and philosophy through their conceptions and beliefs. Similarly, the incorporation of PBL has introduced positive lights in the students' academic achievements through personal satisfaction and an evidence of deep understanding of the project material / process. Hence, learners usually appear with other advantages by engaging them in project through materials which raise their motivation and develop a wide range of qualities along their acquisition of knowledge. The implementation of this method has also shown students' admiration to attend all classes due to their motivation, with such ability to develop both a positive respect for staff and an expectation that the outcome of their performance is due to their own attitude and effort. Along with this, learners tend to accept responsibility for their result 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 increase learners' self-reliance, and improved attitudes towards learning, the major concern for PBL, Aksela and Haatainen (2019) argue, has been to help students acquire deeper content knowledge, skills and feelings of commitment and ownership of their learning (p.11).

IV. LIMITATIONS

It is clear that there is a number of limitations to the implementation of PBL in the learning process 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 persist because they lack an 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 (p.459). Some important questions which Tamim and Grant pose, here, is

whether all teachers should be encouraged to become initiators or if PBL could in fact be implemented effectively in any of these uses? And, can PBL implementation be regarded on a continuum starting from reinforcement of learning ending in initiation of learning? To answer these questions they 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 learners struggle with the concepts of a discipline, and where they construct and transform new skills and understandings. Another problem is the common barriers to implementing PBL which effectively include teachers' resistance to student-driven learning because they often see this as giving up control of the class just as teachers with little practice on PBL are more prone to resist the idea that learners should be responsiblized on their own learning. To this, Aksela and Haatainen (2019) stress on other barriers through which the implementation of PBL are teachers' confusing inquiry-based instruction with various activities in the class with a hint to their inability to motivate learners to work in collaborative teams, and, thus, overcoming student's resistance to employ critical thinking (p.11). 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 leads to time constraints.

V. CONCLUSIONS

Along 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 teacher's way of approaching contemporary projects which trigger their thinking about designing classroom structures, activities, and tasks. It is assumed also as a conclusion that an in-service training for teachers is important to support their pedagogical content knowledge in PBL. Also in order to work on an interactive learning as part of a community reaching beyond the limits of their school culture, teacher's pedagogical development should be developed while working together with the students, and other teachers at their school or other collaborators or teaching practices from other teachers as well as online instructions and training. It is also understood that learning is shared through workshops, for best projects as well as best teaching practices. Although it takes much time to learn to use PBL in practice, teachers should deepen their understanding and teaching practices through continuous and collaborative models for further trainings.

REFERENCES

[1]. Aksela, M., & Haatainen, O. (2019). Project-Based Learning (PBL) in Practice: Active Teachers's Views of its Advantages and Challenges: *Integrated Education for the Real World. Queensland University of Technology*.

[2]. Bagheri, M., Ali, W. Z. W., Abdullah, M. C. B., & Daud, S. M. (2013). Effects of project-based learning strategy on self-directed learning skills of educational technology students. *Contemporary educational technology*, 4(1), 15-29.

[3]. El Bakkali, A. (2020). The Power of Distributed Leadership Styles in Education Practices: The New Challenges and Perspectives of the Moroccan School. *International Journal of Advance Study and Research Work*, 3(2), 9-18.

[4]. Goodman, B., & Stivers, J. (2010). Project-based learning. *Educational psychology*, 1-8.

[5]. Harris, M. J. (2015). *The challenges of implementing project-based learning in middle schools* (Doctoral dissertation, University of Pittsburgh).

[6]. Helle, L., Tynjälä, P., & Olkinuora, E. (2006). Project-based learning in post-secondary education–theory, practice and rubber sling shots. *Higher education*, 51(2), 287-314.

[7]. Intel Teach Program (2012). Overview and Benefits of Project-Based Learning. *Designing Effective Projects.*

[8]. Jalinus, N., Nabawi, R. A., & Mardin, A. (2017). The seven steps of project based learning model to enhance productive competences of vocational students. In *International Conference on Technology and Vocational Teachers (ICTVT 2017)*. Atlantis Press.

[9]. Martínez, M., (2019). Does student learning improve through project-based instruction? *Institut Catala d'Avaluacio de Politiques Publiques*. Retrieved from: https://www.researchgate.net/publication/338335384_Does_student_learning_improve_through_project-based_instruction.

[10]. Matthews, K. E., Marquis, B., & Healey, M. (2017). International collaborative writing groups as communities of practice. In *Implementing communities of practice in higher education* (pp. 597-617). Springer, Singapore.

[11]. OECD Project (2016) Education for Integrity Teaching on Anti-Corruption, Values and the Rule of Law. www.oecd.org.

[12]. OECD Project (2018) Feasibility Study on Integrity Education in Greece Greece-OECD Project: Technical Support on Anti-Corruption. www.oecd.org.

[13]. Tamim, S., & Grant, M. M. (2011). How teachers use project-based learning in the classroom. *In The Annual Convention of the Association for Educational communications and Technology Sponsored by the Research and Theory Division Jacksonville, FL.*

[14]. The Buck Institute (2019) What is Project-Based Learning? Sustainable School Projects Retrieved from www.bie.org.

[15]. Thuan, P. D. (2018). Project-Based Learning: From Theory to EFL Classroom Practice. *In Proceedings of the 6th International Open TESOL Conference* (p. 327).

[16]. Urquhart, C. (2010). "Systematic reviewing, meta-analysis, and meta-synthesis for evidence-based library and information science" *Information Research*, 15(3) colis708. Retrieved from: http://InformationR.net/ir/15-3/colis7/colis708.html.

[17]. Walsh D. & Downe S. (2005). Meta-synthesis method for qualitative research: a literature review. *Journal of Advanced Nursing* 50(2), 204–211.

[18]. Yam, S., & Rossini, P. (2010). *Implementing a project-based learning approach in an introductory property course* (Doctoral dissertation, PRRES).