

The Implementation of Project Based Learning Method in Building Creativity, Encouraging Learning Motivation and Improving Language Skills

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Abstract

This study is aimed to elaborate how the implementation of Project-Based Learning Methodology in the classroom benefits the students in building their creativity, encouraging their learning motivation and improving their language skills. The study is qualitative research with experiential approach. The study described the teachers and students point of view on the implementation of Project-Based Learning in their classroom. he implementation is not restricted to language/English subject but other subjects as well. In terms of language skills, the Project-Based Learning method has opened new ways to improve students' speaking, writing, listening and reading skills. In creativity, Project-Based Learning encourages students to be creative, sharpens the critical thinking skill and interpersonal skill since the projects are mostly conducted in groups. PBL assist the poor academic students to have motivation to improve their academic achievements.

Keywords: Project-Based Learning, Language Skills, Creativity, Motivation

Introduction

Project Based Learning was first initiated by John Dewey an American philosopher, psychologist and education reformer. He is famous for his approach of learning by doing. Most of his methods emphasize on the importance of social environment in assisting the process of learning and experience is one of the best way of learning.

Engaging students with the theory taught is what the Project-Based Learning does. Project-Based Learning (PBL) is one of the effective methods applied in encouraging students' creativity in Learning. Constructing ideas is one of the cores aimed in implementing this methodology.

PBL is in line with the Constructivism Learning Theory. Constructivism is a learning theory that emphasizes the active role of learners in building their own understanding. Rather than passively receiving information, learners reflect on their experiences, create mental representations, and incorporate new knowledge into their schemas. This promotes deeper learning and understanding. (McLeod, 2024).

Building students own understanding needs to be supported by the prior adequate knowledge. Background knowledge help students in executing the projects given.

In elaborating on constructivists' ideas, Arends (1998) states that constructivism believes in the personal construction of meaning by the learner through experience and that meaning is influenced by the interaction of prior knowledge and new events.

The author has experience in applying this methodology as well as other fellow teachers. Building students' creativity has always been a challenge for teachers. Teachers' task is not merely restricted to transferring knowledge but stimulating and assisting students in figuring out their potentials as well.

These purposes can only be achieved if they are given freedom exploring themselves. Teachers hold an important role in observing to ensure that the students stay on the track during the learning process. Giving spaces to students during the learning process turn out to be effective in achieving the outcomes targeted by both teachers and learners. This way is no longer uncommon in the education field, since this way of learning basically having the students to be the center of the learning process or as widely known as student-centered learning. One teaching methodology which implementing the student-centered learning is the Project Based Learning Methodology (PBL). This research explains how PBL applied in the classroom including the outcomes and challenges encountered by both teachers and learners.

METHOD

This research is a qualitative research with experiential approach. This engaging students and teachers in hands with the projects of the subjects learned. The experiential approach as introduced by David Kolb in 1984, involves the transformation of experience into effective learning. Kolb's experiential learning theory stresses how our experiences, including our thoughts, emotions and environment, impact the learning process. Students' and teachers' shared experiences are gathered by the writer in measuring the outcome as the PBL applied. This study carried out by noting down the participants experience in this case teachers and students in applying the Project Based Learning in the teaching learning process for all subjects which use English as the core language in the classroom. The subject of this study are teachers of English, Biology, Indonesia Language and social studies.

RESULTS AND DISCUSSION

Project Based Learning (PBL) Methodology

PBL focuses on students as the center of learning with teachers as the facilitators. The student-centered learning is not new in the teaching and learning classroom. Project Based Learning (PBL) is a student-centered teaching method based on constructivism and constructionism theories developed by Gergen, (1995); Piaget and Inhelder (1969); Vygotsky, (1978), (Aldabus,Shaban (2018). The first time it was introduced, many teachers misunderstood and misapplied this, as the teachers were giving topic,doing nothing while the students did all the work. In reality, student-centered learning is meant for the students to be able to access all information from any sources and not solely rely on teachers as the source of information, and on this part, the teachers are function as the guides for the students for not taking any misinformation on the subject matters. This is also meant that the teachers are required to have adequate knowledge to mentor the students during their study.

One of the best ways to implement this student-centered learning is by giving a project to students to carry out with the topic in line with the subject learned. Project - Based Learning enables the students to be creative in presenting the outcome of their projects.

PBL must not be taken simply as doing a project, which is mistakenly considered by many teachers. The PBL approach can theoretically be implemented in any subject areas. (condeliffe,et.al.2017). As cited in condeliffe, et al, some PBL scholars set guidelines for the types of questions and topics that a student should encounter, as well as the relationship between the PBL approach and other curriculum and pedagogy featured in the course (Darling-Hammond et al, 2008; Krajcik and Shin, 2014; Larmer and Mergendoller, 2015a; Parker et al., 2011, 2013; Thomas, 2000):

a. Driving Questions to Motivate Learning:

The task/project given should be able to encourage the learner to have curiosity and drive them into having the desire to learn more and more about the project given. Krajcik and colleagues provided the following five criteria for high-quality driving questions: 1) *feasible, 2) worthwhile, 3) contextualized, 4) meaningful, and 5) ethical* (Krajcik and Mamlok-Naaman, 2006; Krajcik and Shin, 2014).

Driving questions that are feasible to explore and meaningful to students should anchor a unit of study, enabling students to explore and address issues beyond the four walls of their classroom — both in their community and the broader world. A driving question and a series of related questions guide what students do in the unit. (De Vivo, 2022)

b. Target Significant Learning Goals

In designing the project for the students, it should be assured that the teacher has set the learning goals of the subject. This shall assign the students in designing the concepts, the topic meant, as well as the source of information the students might seek. Lesson plan has significant role in assisting the teacher to focus on the material to be taught. Other researches also highlighted the fact that the subject matter of a PBL approach should authentic and related to important issues in the real world.(condeliffe,2017)

- c. Use Projects to Promote Learning The project in PBL should be considered as the learning process of the students in understanding the material better. PBL is expected to build students' interest on the subject learned.
- d. Dedicate Sufficient Time to PBL

Time holds significant role in PBL. Theoretically, there is no clear arguments on the ideal time limit spent on PBL. However, the design principles offered by Parker and colleagues (2011, 2013) and Thomas (2000) require that a PBL approach guide the curriculum and instruction of an entire course and not just appear in a single, time-limited unit. With one exception (Grant, 2002), all other design principles reviewed here are related to students conducting in-depth or extended investigations, which clearly require a good deal of time. Ravitz (2010) specified that PBL instruction should "occur over an extended period" (p. 293). Most PBL advocates would likely agree that a relatively short PBL unit as part of a traditionally taught, teacher-directed course is not truly PBL. However, more specificity regarding the time dedicated to a PBL unit and the relationship between PBL and other pedagogical strategies within a course would be useful.(condeliffe,2017)

Building Creativity with PBL

It is clear now that implementing PBL in the classroom is not as simple as it seems. The Project needs to be thoroughly designed by the teacher to ensure that it does not exceeds the topic learned, precise in timing, as well as explicitly depicting in-depth knowledge. Not solely creativity, this method stimulates students sensitivity to the environment surrounding them. Working in groups in completing the project assigned requires the students to communicate with their friends, opens discussions which broaden their knowledge. These communication activities benefit the students in building the social skills. Students learn how to build friendship, become good listener and know how to have good team work. Teacher's role in implementing PBL is crucial, the teacher should be very attentive in deciding which students hold the role of the leader of the group.

The student-centered learning in PBL takes place in terms of creating, designing and projecting the outcomes of the project given. Most commonly, the outcome of the projects are projected by way of presenting them both in written or spoken form. As previously stated, driving question is the first step into leading the students doing the project. Many teachers forget or even ignore this first stage. Either the outcome of the project is in form of class presentation or posters, it should be bare in mind that the outcome should be within the core of the subject taught.

However, traditionally, PBL which is considered as student-centered learning or student-active learning as some may call it, often lead teachers to giving project to the students with limited basic knowledge on the subject with the excuse that students should seek the rest of the knowledge themselves while forget to motivate them with driving questions.

Assigning of the project to students is basically has the aim of evaluating students understanding on the topic taught. The misconception of PBL often draw the teacher into assigning the project without giving prior background knowledge of the subject assigned It should be kept in mind that the project is meant to measure students acknowledgement of the subject taught.

Doing project in PBL is surprisingly challenging to teachers and students. Creating the questions to students is not an easy task. Teachers need to be creative enough to design the question for the students to explore their creativity. One experience was shared by one of the teachers teaching history. The topic discussed is on the human rights. The driving questions given by the teacher was the case or events in the world related to the violation of human rights and the students were divided into groups with the timeline up to two weeks. The outcome of the project was surprisingly beyond the teachers expectation. The students presented the project in form of posters with pictures and heart-touching wording along with the posters. Some posters were beautifully designed benefiting the technology and some are in drawings, applying the students talent in drawing. Students are given rooms to voice their thought and present the results in creative way. The project challenged the students in terms of creativity in presenting the project and in voicing their minds on the questions asked which at the same time challenge them in identifying the problems of the project assigned.

Surprisingly, PBL encourages the students to read since the project given requires them to upgrade their knowledge. The strong ambition in doing the best for the project followed by the hunger for the deep knowledge and curiosity in answering the questions assigned by the teacher demand the students to read. Unconsciously, the students oblige to read.

Having interviewed the students of their feeling in doing the project. They responded that they were very happy since they managed to show their talents and the freedom to design the project. The most excitement is they were able to work with friends, brainstorming together on the content, designs and browsing for the information on the internet. The conclusion that can be drawn is the students love the process and the happiness reflected on the satisfying result reflected on the posters.

PBL involves the students ability in language as well. Students ability in shaping the thought into good language is one of the advantage in Project Based Learning Method. For lower level, such as kindergarten, project based is usually explained visually. One project conducted on kindergarten on vegetables as one of the healthy food was initially taught by teachers by showing pictures to students and bring the real vegetables in the classroom. Teachers started the lesson by showing the color, the vitamins that the vegetables have and the pictures of the vegetables. The project given was the students identified the real vegetables based on explanations provided. Surprisingly, the children had no difficulty in identify them. It takes shorter time making the students identifying the vegetables compare to time consume when they were merely presented to pictures to tick or to match the picture and category. In terms of creativity, the children are asked to color the pictures according to their imagination and explain to those to their friends.

For high school students, PBL enables the students to experience the real world and involve themselves in it. As for higher level students, they challenge themselves to present the best and it involve their critical thinking. Aiming to get better or best score in completing projects, students are not aware that they have gone through certain process which sharpen their in depth-knowledge and creativity.

Based on the teachers experience, these students are usually excited to be assigned with projects. Whether they realizing it or not, the interest in reading is increasing.

Having to work on the project together has somehow grow students interest in learning. Subjects which first considered as hard and boring have turned into fun and mood boosting ones. PBL has upgraded the students' mark on the subjects learned.

PBL and Learning Motivation

Many discussions of motivation begin by making a distinction between intrinsic and extrinsic motivation. (Stirling, 2014). Project-Based Learning has both factors in motivating students to be keen in their learning process. Intrinsic comes from the students themselves while extrinsic is the opposite. If a student is intrinsically motivated, he will consciously do activities that do not require external motivation. So intrinsic motivation arises on the basis of consciousness with an essential purpose, not just attributes and ceremonial. Extrinsic motivation is the opposite of intrinsic motivation. Extrinsic motivation is an active and functioning motive due to external stimuli. (Vai,et al.2022)

Project-Based Learning mostly conducted in groups. Having surrounded by friends for discussion and brain-storming is most likely affect a student to learn. The teacher should be able to arrange the group members in a way that even a shy and quiet student would feel comfortable in the group. The role of environment is an external stimuli for the student. Extrinsic motivation opens way for student to have consciousness to learn and improve the knowledge. Encouraging students to have motivation in learning is not an easy task, by implementing the Project-Based Learning, the teacher as well as parents are very much helped with this method.

Language Skills in PBL

Language skills involve speaking, writing, listening and reading. PBL requires these skills and it sharpens the students skill too. This is one of the reasons why PBL is best be done in small groups. Reading fluency is crucial for students in seeking information related to the topic for the projects since reading fluency determined the readers ability in comprehending the text read. Reading comprehension is defined as a cognitive process of making meaning from texts (Woolley, 2011) and is highly dependent on a reader's ability to read written texts accurately and fluently. (Kang &Shin. 2020).

Reading ability stimulates critical thinking. The students need to filter the information, comprehend and paraphrase. All the information source from the text sorted with careful consideration. According to the students, the hardest part of the discussion while doing the project is sorting out the information making sure that it relates to the topic. This is where the critical reading skill is required.

Writing is another challenge to be conquered by the students. Having massive information, sorting it out and put it into wording is another challenge. If it is in the form of posters, the students needs to make sure that the wording is not too much to avoid the undelivered message to the reader. In the form of presentation using power-point especially in certain application like *canva*, they need to make sure that only important information presented on the power-point. According the students, wording in the second challenge they have to cope up with. Students are also challenged to be able to manage their time during presentation, which again, require their skill in condensing and reducing information needed to be presented.

Listening involves when discussion takes place. Literal listening ability takes over this phase. A group leader usually does all of the literal listening process, listen to every opinions from the members and decide which information to be used. During the presentations, questions from the other participants needs to be noted and answered later. However, literal listening skill is unconsciously trained within individual in the group, being able to listen and appreciate others opinion are one of the core lesson acquired by the students during their discussion.

Speaking skill is undoubtedly required during the presentation. Presenting the outcome of the project to the class is not easy task. The tone, expression, structure and concentration are inseparable, especially if the presentation is delivered in foreign language. Interesting way in presentation avoids boredom. One of the students admitted that this is the most challenging step in Project-Based Learning. Coping the nervousness often distracted them from keeping the presentation well-delivered especially when it is delivered in other language such as English since he had to make sure there was no flaw in pronunciation and grammar. If the outcome of the project is delivered in his language, the burden is not as challenging as in English. Project presentation is mostly conducted in groups. Speaking in front of the class trains student's public speaking skill as well. Well-delivered presentation is one of the point for the teacher in marking the students successful in the Project assigned.

The challenging in using language does not discourage the students from preferring the PBL to be implemented in their learning process. The students love the process in doing the project. Being able to work with friends also helps those students who are academically poor and encourage them to speak which improve the speaking skills.

CONCLUSION

Implementing PBL is challenging to both teachers and students/learners. It need to be kept in mind that wrong understanding and wrong perception on the PBL method shall be resulted in the wrong implementation.

PBL involves students more in the process to broaden their knowledge. There are rooms for creativity and language skills improvement, however, teachers should have clear position in the PBL method. Teachers are demanded to be the guidance, other then that, the teacher should be able to supervise and aware of their role as the source of information in addition to other information source.

Project-Based Learning appears to be able to build students' interest and motivation in learning, having some friends working together completing the project are fun and assist each students in their academic achievement.

In terms of language skills, Project-Based Learning is pretty much improved students language skills especially in speaking since presenting the outcome of the project and answering questions from other students have unconsciously demand them to be good in both language skills.

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