

Perceptions of Students on Project-Based Learning: Evidences from Public Schools in Pokhara

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ABSTRACT

Many initiatives introduced to enhance students learning in Nepal, and Project-Based Learning is one such. It is compulsorily integrated into the school curriculum in all subjects. Despite its timely use and integration in a school course, many arguments are raised regarding its relevance and application. This study explores the lived experiences of the students studying at the secondary level in public schools run by the Nepal government regarding their perception of Project- Based Learning in school. Seven students were interviewed in-depth, and 15 interested students in classes nine contributed reflective notes to the data collection process. The study has coined three themes by processing the data: perceptions of students on project based learning, enhancement of skills and competencies, and challenges students face in the school context of Pokhara. Findings revealed that the project-based learning introduced in school turned out to be supportive to students in shaping their learning autonomously and through real-life learning. Therefore, the research revealed a positive impact on improving classroom practices and enhancing learning among participating students. The research also finds that some students find it burdensome and loaded as many projects are assigned in a hurry. Future research might explore modes of effective interventions for helping students grow in their practices of project-based learning.

Keywords: project work benefits, student development, improved classroom practice, higher engagement

Introduction

The goal of schools is to make students learn effectively. There are different ways adopted to uplift student learning, and Project-Based Learning is one such method. Project-based learning is the most discussed and researched area in academia (Egilmez & Gedik, 2018). For promoting student-centered learning, project-based learning is the right option (Al-Balushi & Al-Aamri, 2014). PBL is

known for its modality of learning through various projects, and in such projects, students working on projects have clear learning experiences (Wurdinger, et al., 2007). As per Bloom and Kowalske (2016), PBL students are the key part of the projects and teachers are to just facilitate their learning process or their exploration. There exist varied definitions of PBL as per its wide scope. Robinson (2013) also argues that project-based learning is beneficial for increasing students' motivation and engagement

in the study. Rieber (2004) notes that “projects, as external artifacts, are public representations” (p. 592) to find a way for learners’ quest. Likewise, project-based learning, which was first coined by John Dewey, deals with creating the product and some authentic works of students (Warin et al., 2015). PBL comprises activities where students collaborate with co-learners and the teacher who scaffolds their learning to plan, create, and carry out the project in real-world contexts. As stated in Brewster & Fager (2002), “Learning activities are interdisciplinary, long-term, and focused on pupils, rather than short and disconnected lessons” (Challenge, 2000: Multimedia Project, 1999) as quoted in: Brewster & Fager, 2002, pp. 4)

There are many initiatives introduced in Nepal for the improvement of student learning but the most challenging issue these days is to ensure that students learn effectively and they develop some attributes and abilities like working independently and developing collaborative thought. PBL is one such method that ensures the same and there is the integration of this in school education. It is said that these methods have been successful in many developed countries in bringing about transformation in education. It is useful to uplift students’ skills, knowledge, and experiences of working together Ngereja, Hussein, and Andersen (2020). Grant (2002) has opined that PBL has contributed to case students’ potential and to unpacking their hidden talents. Because of the projects assigned to them, they explore, move, ask for, and collaborate, and they come to offer new learning.). There has been a new practice in the field of assignment these days, and PBL is one as it develops students’ knowledge and makes them familiar with real-life learning experiences (Kızkapan & Bektaş, 2017). Condliffe (2017) opines that PBL helps students develop creative thinking skills, improve communication skills, and lifelong learning skills. Furthermore, Kokotsaki et al. (2016) also say that PBL is the best way to teach twenty-first-century skills to students, which are the demanding aspects of the present era. Quint and Condliffe (2018) also says that PBL develops problem-solving skills and can enhance decision-

making skills. Rahaman (2018) has concluded that PBL implementation helps in promoting active learning as students get a full chance to get involved in curriculum-based tasks, can deal with challenging questions or problems, and can be part of involving critical thinking and creative skills. PBL also helps in developing communication and collaboration, which they need to explore during their learning. Likewise, Holm (2011) says that PBL is important in learning as it improves students’ motivation, makes learning sustainable and lifelong students are responsible for their learning. From all this, it is found that PBL is a very much demanded practice in teaching learning world. Likewise, Stripling et al. (2009), The educational technique known as “project-based learning” encourages students to research subject matter independently and share what they have learned in a variety of ways. Several researchers have revealed the effects of project-based learning on student performance. Chen and Yang (2019) said there have been improvements in students’ performance when teachers are involved in PBL and students are achieving high. The results further indicated that project-based learning contributed more to students as they were the center of the projects. Boubouka and Papanikolaou (2013) found that project-based learning has a direct impact on students’ improved performance.

Nepal has also made it mandatory in schools to include project-based learning and that covers 25% of internal assessment. Being aligned with the demands of the curriculum and the Nepal Government’s policy, every school in Nepal is adopting Project Based Learning in Education. The schools have introduced this practice in school. But whether this practice is beneficial or not is yet to be explored.

Shrestha et al. (2021) have studied the perception of teachers and students in universities regarding PBL and it has helped them have active learning. Likewise, In his research on the realities of using PBL in Nepalese English language classrooms, Mouni (2022) discovered that there are issues with pedagogy, time, and teacher idea. Likewise,

Chapagain (2022) talked about the factors affecting PBL in Nepal and found that there should be proper guidance from the project supervisor or the assigned person for its successful implementation. In the same way, Giri (2016) 2016 said that project learning help to increase the twenty-first-century teaching approach

Likewise, Bastola (2021) has argued that Project-based learning is highly useful in improving critical skills in students and also said that it helps to increase pedagogical understanding in students. Thakuri (2023) has said that project-based learning is useful to have engagement in mathematics classes and highly beneficial for students. Another study carried out in Nepal by Acharya et al. (2020) says that project-based learning is having a positive role in learning and it is found that the school team including the head teacher must have a timely plan for its better practice.

Problem Statement

In Nepali contexts, it is found that much research has been carried out concerning the factors affecting PBL, the relevance of PBL, the role of PBL in students' learning outcomes, and the possibilities and effectiveness of PBL. But it is found that perceptions of students regarding Project Based learning in school is not touched yet.

Several researchers outside Nepal have revealed the effects of project-based learning on student performance. Chen and Yang (2019) said there have been improvements in students' performance when teachers are involved in PBL and students are achieving high. The results further indicated that project-based learning contributed more to students as they were the center of the projects. Boubouka and Papanikolaou (2013) found that project-based learning has a direct impact on students' improved performance. Visiting literature, it is seen that students are the center of the project work, and their experiences are not explored, especially in the school contexts of Nepal. Therefore, this study has attempted to explore students' perspectives concerning PBL and its practice in school as they are the core people connecting to learning.

Research Objective

The overall objective of research is to assess the perceptions of students on project-based learning from public school of Pokhara, Nepal. This paper attempted to following specific objectives:

1. To assess the students response towards project based learning concerning their study.
2. To describe how can project-based learning be practiced or facilitated from learners viewpoint.

This paper has focused on students' real experiences of doing projects and their support.

Methodology

This study is based on a narrative design in the qualitative research domain. It tries to explore secondary-level students' perceptions about the implementation of PBL in Nepalese classrooms as a recent phenomenon of school education, particularly from classes 9-12. To fulfill the purpose of the study, the researcher selected two schools in Pokhara purposefully, and the research was conducted based on convenient sampling. The researcher used 7 girls studying in class ten for an interview and took reflective notes of 15 girls in class nine as a sample. Out of seven girls two were from School A and five were from School B. For reflective notes, I took seven girls from school B and eight from school A. For data generation, in-depth interviews were conducted at the convenience of the students with prior notice, and they were also asked to write reflective notes based on their experience of doing projects for getting additional information needed. All interviews consisted of 15 to 20 min and prior consent was obtained for it. For reflective notes on project-based learning, they were called into the classroom during off-hours for writing reflections. The reflective notes and interviews were scheduled as per their availability and were asked to participate spontaneously. The data were collected with notes, records, and transcripts prepared in written format. Then, the processed data were presented, discussed, and analyzed qualitatively solely depending on their narratives and stories of doing projects.

Theoretical Background

Constructivism Learning Theory

This study has made constructivist learning theory the theoretical refrain of the study as constructivist learning theory demands students' engagement in learning and opts that the learning process should root in students themselves. According to Handrianto and Rahaman (2019), the foundation of constructivist learning is students' autonomy and engagement in their learning. They contend further that learning construction is extremely high when pupils are actively engaged in their studies. According to Moore and Kearsley (2010), constructivist thinkers like Dewey (1938), Piaget (1964), and Vygotsky (1978) served as the theoretical forerunners of project-based learning and teaching activities. The theory of constructivism says that individuals create or make the meaning of the surroundings they are exposed to by synthesizing new experiences with their prior understanding. They could learn through reflection on their interactions with the environment to which they belong.

According to Vygotsky (1978), teachers and other relevant parties help to structure how children form their ideas of themselves. Since he claims that people learn through interaction with more experienced or capable peers, this social constructivism theory has an impact on the learning process in the context of socio-cultural context; (2) Proximal Development Zone (zone of proximal development). If people are in the Proximal Development Zone, they will be able to learn the concepts in a good way. So, PBL creates learning by keeping the students at the center. Thus, PBL and constructivist learning theory are interlinked, demanding students' involvement, engagement, and exploration of their surroundings for learning. It demands problem-solving, and students are exploring their own discussions and engagements. (Fernando and Marika, 2017). Many similarities exist between the ideas of constructivism and the essence of PBL. According to Asiksoy and Ozdamli (2017), constructivism theory is opined for the student's construction of their knowledge as per the context of their environment and the problem

they are exposed to. PBL also demands the same as students explore, discuss, and collect ideas on the issues where they are working on and they are the master of theirs. From this, we can reveal the deeper connection between constructivist theory and PBL.

Results and Discussion

This study has generated three major themes based on the research question. They include students' perceptions of Practices of PBL, support in enhancing skills and competencies, and challenges and difficulties they encountered. These themes have been illustrated in the section that follows.

Theme 1: Students' Perception of the Practice of PBL

Many scholars have opined that PBL learning seems to have fitted contribution on student learning. The responses to the research questions also have the same sort of responses from students. Connecting to this point Ramila says:

“It has made I more creative and helped a lot in exploring new ideas. I was a bit shy earlier and because of the projects assigned, I started learning and became friendly to my friends and teachers as I needed to speak for finding my project done. This has helped me improve my communication skills. I started doing projects on my own, and I guess it helped me be critical and kept me more engaged. This gave me lots of engagement as I needed to consult secondary sources as well for getting new ideas for my projects. While doing projects, I took courage and faced teachers and even talked to friends from other sections while dealing with my projects. Which developed a sort of confidence in me. I also learn to face challenges as of the projects.”

The perceptions of Ramila go with the idea of Pearlman (2006), who argues that PBL helps construct different skills required in their day-to-day life. The stories of Ramila also revealed that PBL has been useful for her as she could communicate well and started thinking critically as she started working on projects and became a good communicator.

Stripling et al. (2009) said that PBL helps students learn on their own and they start creating knowledge on different areas of self-exposure, and real-life learning is possible. The same thing is revealed in Shalin's story. He shares:

“I learned many things while working on projects. I felt very easy as I got to learn at my own speed and I learned more as I started exploring projects. I realize that the activities I do on my own remained forever in my mind than the lessons I learned from lectures in class.”

Shalin's stories also coincide with the ideas of Grant (2002), who also argues that PBL helps students learn autonomously and that PBL is child-centered pedagogy. Shalin says that the PBL is useful for him as he learned autonomously and he is doing himself what he is needed to do. Kzkapan and Bektas (2017) say that PBL promotes critical thinking and exposes students to real-world learning. This is also reflected in Shalin's story of doing projects.

Connecting to this theme, Madhavi puts:

“It is excellent and effective for me. While doing projects, I got to collaborate with friends and group members. Taking interviews, making notes, and observing things around and field visits for successful completion of the project work made me more confident and even developed my leadership potential and ability to work in a team.”

The story of Madhavi relates to the idea of Miller (2017), who says that PBL develops collaborative learning in students. Madhavi also revealed that she developed collaboration while doing projects as she needed to interact among pupils for interviews and field visits and while working in the team too. This finding also matches that of Han (2017). Who argues that PBL develops collaboration and creativity in students as they explore real-life learning?

Theme 2: Enhancement of Skills and Competencies

The enhancement of knowledge and skills is mandatory in today is. Rotting education has kept

this part in the shed, and this is the utmost need of today's children. Therefore, it has been very necessary to involve students in different ways of learning and inoculate them with such talents. Chard (2014) says that while doing projects students normally have to find the answer to why, what, where, and when, which allows them to develop different skills and knowledge by consulting with people and other available sources. They conduct interviews, visit people, surf the internet, and do reflection. This makes them skilled and they gained knowledge in different areas like in science, they explore the natural world, in social studies they deal with people and lifestyle.

Regarding this Deependra shared:

“Project-based learning offers learning inside and outside our classroom. While being in the classroom, I just learned to listen to teachers quietly and do things as instructed. But while doing projects, I got to develop knowledge in different areas on my own. It also developed my writing efficiency and ways of getting information from Google. I also improved my presentation skills in class as I needed to present my projects in class. Thirdly, I needed to approach people, and for that, I learned to use formal etiquette of approaching people. Not only that but because of projects we needed to visit the community and it has made my social relationship stronger and I learned to cooperate too. It also made me more social and helped me in my socialization by awarding me social skills. On the top, I develop confidence.”

Connecting to this point, Shalin shared:

“As of PBL, I got to improve my handwriting. I could not write straight in A4-sized paper, but the projects made me write effectively. I further learned to value time to work smartly as we have to submit 7 projects together. As a result of the varied projects assigned in different subjects, I developed some ways of creative writing and learned to write in the best possible way. For instance, in social studies

I wrote reports of field visits and prepared news articles on social issues, in English I learned to write a travelogue, brochures, and condolences, and in science I learned to prepare the processes and descriptions of different matters. Because of this, I have developed some skills that I needed beyond my classroom practices. This has further developed my oratory skills and increased my writing speed as well.”

Ramila said: “I got to be competitive and more creative as of the projects I did in my class as a part of my learning.”

Laxmi asserted:

“I got more engagement and started loving my study since I started doing projects.”

This finding matches the ideas of Munakata and Vaidya (2015)) and Paschalis (2017), who opined that PBL always promotes that sort of learning that results in the generation of skills among students and it also expands their knowledge horizon. Participants are also found sharing the stories that they are able to speed up writing, become more creative, develop communication and collaborative skills, and more as of projects launched in school. Chard (2014) further says that students work inside and outside the classroom, and they develop many skills and knowledge obviously. This also has similar findings to Zhang (2021) who also agrees that PBL increases engagement in students as one of the participants also shared the same thing This is also the case of my participants and PBL is found to be useful in developing skills and knowledge in students.

Theme 3: Challenge Students Faced in our School Context

From the discussion presented above, there have come many positive responses to PBL It is turning to be an effective and demanding approach in schools as many students are liking it and perceiving it positively. However, its successful implementation in our context is required. It is obvious that for the successful implementation of it in schools, many

things are required, such as enough time, adequate resources, and proper guidance from teachers. Connecting to this theme Shalin shared:

“Our teachers simply ask us to do projects but they do not instruct us how. Doing with little knowledge has created hurdles. sometimes we have no way of copying friends’ ideas as we lack proper guidance. Simply awarding projects is not the way that teachers do as part of teaching.”

Likewise, Ramila shared:

“Once our science teacher gave us the projects in the last hour. She awarded the project just three days before our final examination. I had no other option than copying from the internet and friends. It is better if teachers give projects with proper plans and enough time duration. We also expect them just to facilitate us during the process instead of just assigning the topic and seeking the complete project.”

Regarding this, Deependra shared:

“We are boarders and teachers demand secondary sources for information. We do not have internet access or other printing facilities. Second, some teachers demand colorful papers and attractive projects in a short span of time. Neither we can go home and get them and nor we get them here in schools. We have difficulty in managing resources and getting them timely.”

Madhavi shared:

“Sometimes, teachers give projects that require community consultation. Since we are boarding students, we find it a bit challenging to get enough time to get people. It is nice if they plan projects timely while keeping the feasibility and availability of resources. It is better if teachers have interdepartmental sharing before assigning the projects so that we don’t get pressurized.”

Pearlman (2006) says that PBL is useful in creating active, smart, collaborative and knowledgeable and skilled students. At the same time, there are

challenges of PBL as perceived by students. These findings align with Yaman (2014) who said that interactions with teachers and friends are not enough and that they need other resources for better learning. This research has coincided with the findings of Basjaruddin and Rakhman (2016), who say there are problems faced by engineering students related to the material, and here also participants revealed the same.

It is found that PBL practice at has been very fruitful as there are more positive perceptions of the students relating to their experience. It has turned out to be an effective way of learning for students. It is discovered to be a useful tool in our environment for assisting students in learning more effectively and engaging in lifetime learning. Further, it is found to be beneficial to develop some skills and knowledge in students. It must be managed effectively for better output in the future. However, there are several challenges faced by students in its improved implementation as a part of their learning. Therefore, it is required to address the perceived challenges of the students in the days to come with proper planning and resources needed for aligning to this emerging issue that helps to learn through projects.

The Implications of the Study

This study sampled twenty two girls (seven were interviewed and fifteen girls' reflective notes were used) who are part of project-based learning in two public schools in Pokhara as per their interview expert and reflective notes. Based on their experiences, the author has projected the implications for aspiring teachers, existing teachers, and even students and college-level students to keep them motivated and to practice them knowing the benefits and possible challenges of PBL. Moreover, it can be useful to policymakers, practitioners of PBL, and all educators, and teachers for enhancing teaching and making students learning more effective.

There exists a numerous positivity of PBL regarding teaching-learning activities as it ensures

every side of the student's potential. Therefore, there should be plans and policies in schools for effective implementation with prior solutions for possible challenges and difficulties. For its effective application in schools enough educational materials, competent and skilled personnel, and less crowded classrooms are found mandatory, which can be evidenced from Kathmandu College of Management practice also (Mishra, 2023) and it needs to be applied effectively in other organization with preparations.

Conclusion

This research deals with the student's perception of project-based learning in school, which is a very new and prominent concept in the teaching-learning field in Nepal; it is a new and innovative idea of teaching where students learn autonomously and develop many skills they require. It also encourages real-life learning as there happens to learn connects to the real world. It has been an effective method for the active and long-lasting engagement of learners with a high level of motivation and autonomy. Although there exist a few challenges to PBL integration in the learning activities of students. It has thousands of benefits. Therefore, PBL is required to adjust in schools with possible parameters to address its challenges. PBL is a need of this era for ensuring quality education and lifelong learning. So it must be fully implemented in our context too with full preparedness of resources, time, and a more flexible routine for strengthening schools' performance.

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