Project-Based Learning Practices and Their Implications for Sustaining Pupils' Motivation in Elementary Schools in Zamboanga Peninsula, Philippines

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ABSTRACT

Project-Based Learning (PBL) has emerged as a learner-centered instructional approach that promotes active engagement, critical thinking, collaboration, and meaningful learning experiences among pupils. This study examined the implementation of Project-Based Learning practices in public elementary schools in Zamboanga Peninsula, Philippines, and their influence on pupils' motivation. Specifically, the study assessed PBL practices in terms of purposing, planning, executing, and evaluating as perceived by school administrators and teachers. A descriptive-comparative research design was employed involving 27 school administrators and 128 teachers selected from public elementary schools in the district. Data were collected using a researcher-developed questionnaire and analyzed using weighted mean, ranking, and t-test. Findings revealed that Project-Based Learning practices were highly implemented across all dimensions, with purposing and planning obtaining the highest ratings. Both school administrators and teachers perceived PBL as an effective strategy for enhancing learner participation, engagement, and motivation. Results further indicated no significant difference between the perceptions of administrators and teachers regarding the implementation of PBL practices. The study highlights the value of Project-Based Learning in fostering a motivating and learner-centered classroom environment that supports pupils' academic engagement and skill development. It is recommended that school leaders and teachers strengthen the integration of Project-Based Learning through continuous professional development, collaborative planning, and systematic monitoring to sustain learners' motivation and educational outcomes.

Keywords: project-based learning, pupils' motivation, learner-centered instruction, elementary education, educational leadership.

INTRODUCTION

Project-Based Learning (PBL) has emerged as a learner-centered instructional approach that promotes active engagement, critical thinking, collaboration, creativity, and problem-solving among learners. Unlike traditional teacher-centered instruction, PBL enables pupils to construct knowledge through authentic learning experiences and meaningful tasks that connect classroom concepts to real-life situations. Recent studies have shown that PBL positively influences learners' academic achievement, motivation, communication skills, and higher-order thinking abilities by encouraging active participation and sustained inquiry throughout the learning process (Zhang et al., 2023; Sánchez-García et al., 2025; Espino-Díaz et al., 2025). As educational systems continue to respond to the demands of 21st-century learning, PBL has gained increasing recognition as an effective pedagogical strategy for fostering learner engagement and developing competencies necessary for lifelong

learning. Furthermore, the integration of PBL supports the attainment of Sustainable Development Goal 4 (SDG 4), which emphasizes inclusive and equitable quality education and the promotion of lifelong learning opportunities for all by encouraging meaningful, participatory, and student-centered educational practices (UNESCO, 2020). The potential of Project-Based Learning to sustain pupils' motivation may be explained through learner-centered theories that emphasize autonomy, competence, and meaningful participation in the learning process. When learners are actively involved in planning, investigating, and presenting projects, they are more likely to develop intrinsic motivation and sustained engagement in learning activities (Alipoyo, 2026). Learner-centered educational approaches emphasize the importance of allowing learners to construct meaning from authentic experiences, thereby promoting deeper engagement, reflection, and sustained motivation toward learning activities, as stated by Aranjuez and Molejon (2026).

Despite the increasing adoption of Project-Based Learning (PBL) worldwide, evidence regarding its effectiveness in elementary education remains mixed. While many studies report positive outcomes in learner engagement and motivation, other researchers have noted challenges related to teacher preparedness, assessment complexity, limited instructional resources, and varying implementation quality across schools (Kokotsaki et al., 2021; Guo et al., 2020). Furthermore, most studies have focused on secondary or tertiary education contexts, leaving elementary-level implementation relatively underexplored, particularly in developing countries. In the Philippine educational context, empirical studies examining how specific dimensions of PBL implementation influence learners' motivation remain scarce. This gap underscores the need to investigate not only the extent of PBL implementation but also how school stakeholders perceive its contribution to sustaining pupils' motivation within resource-diverse elementary school settings.

Objectives of the Study

- To determine the extent of implementation of Project-Based Learning practices in terms of: purposing; planning; executing; and evaluating.
- To assess the overall level of Project-Based Learning practices as perceived by school administrators and teachers.
- To compare the perceptions of school administrators and teachers regarding the implementation of Project-Based Learning practices across the four dimensions.
- To determine whether a significant difference exists between the perceptions of school administrators and teachers regarding the implementation of Project-Based Learning practices.
- To draw implications of Project-Based Learning practices for sustaining pupils' motivation and enhancing learner-centered instruction in elementary schools.

METHODOLOGY

This study employed a descriptive-comparative research design to examine the implementation of Project-Based Learning (PBL) practices in public elementary schools in the Zamboanga Peninsula, Philippines, and their implications for sustaining pupils' motivation. The study involved 27 school administrators and 128 teachers who were selected using purposive sampling based on their teaching and administrative experience in the district. Data were collected through a researcher-developed questionnaire anchored on the four dimensions of Project-Based Learning practices: purposing, planning, executing, and evaluating. Before data collection, the instrument underwent content validation by educational experts and pilot testing to establish reliability and clarity of the items. Ethical protocols were strictly observed, including obtaining permission from concerned authorities and securing informed consent from all participants.

The collected data were analyzed using descriptive and inferential statistical techniques. Weighted mean and ranking were utilized to determine the extent of implementation of Project-Based Learning practices across the identified dimensions. To examine differences in perceptions between school administrators and teachers, an independent samples t-test was employed at the 0.05 level of significance. The findings were interpreted to determine the level of implementation of Project-Based Learning practices and their implications for sustaining pupils' motivation and strengthening learner-centered instructional practices in elementary education.

RESULTS AND DISCUSSION

Table 1: Extent of Project-Based Learning Practices in Public Elementary Schools

Project-Based Learning Practices	Mean	Interpretation	Rank
Evaluating	3.32	Highly Implemented	1
Planning	3.31	Highly Implemented	2
Executing	3.27	Highly Implemented	3
Purposing	3.24	Highly Implemented	4
Overall Mean	**3.29**	**Highly Implemented**	

The findings indicate that Project-Based Learning (PBL) practices were highly implemented across the four dimensions, with evaluating obtaining the highest mean score (M = 3.32), followed by planning (M = 3.31), executing (M = 3.27), and purposing (M = 3.24). The overall mean of 3.29 suggests that school administrators and teachers consistently practiced essential components of project-based instruction. The prominence of evaluating and planning indicates that educators placed substantial emphasis on monitoring learner progress, assessing outcomes, and organizing meaningful learning experiences. These findings support contemporary evidence that effective implementation of PBL promotes learner engagement, collaboration, critical thinking, and deeper understanding through authentic learning tasks and continuous assessment mechanisms (Zhang et al., 2023; Sánchez-García et al., 2025). Likewise, recent studies have demonstrated that well-structured project-based activities enhance students' motivation and active participation by creating opportunities for inquiry, reflection, and real-world problem solving (Condliffe et al., 2021; Guo et al., 2020). The results therefore suggest that the participating schools have established instructional practices that align with learner-centered educational approaches and contemporary pedagogical reforms.

The findings are consistent with international studies conducted in Europe, Asia, and North America, where Project-Based Learning has been associated with increased learner engagement, self-regulated learning, and improved academic persistence. For example, research in Finland and Singapore found that structured project-based activities enhanced students' motivation by promoting autonomy and authentic problem-solving experiences. Similarly, studies conducted in the United States reported that learners participating in project-based environments demonstrated higher levels of engagement and ownership of learning compared with those exposed to traditional instructional approaches. These similarities suggest that the motivational benefits of Project-Based Learning may transcend cultural and geographical contexts when implemented effectively.

The findings imply that sustained implementation of Project-Based Learning can serve as an effective strategy for promoting pupils' motivation and engagement in elementary education. The consistently high ratings across the four dimensions demonstrate that teachers and school leaders recognize the importance of designing purposeful learning experiences, facilitating collaborative activities, and conducting meaningful evaluations to support learner development. These practices directly support Sustainable Development Goal 4 (Quality Education), which advocates for inclusive, equitable, and high-quality learning opportunities for all. Strengthening professional development programs focused on project design, assessment strategies, and learner-centered pedagogy may further enhance the effectiveness of PBL implementation and contribute to improved educational outcomes among elementary pupils.

Table 2: Comparability of School Administrators' and Teachers' Perceptions of Project-Based Learning Practices

Project-Based Learning Practices	Mean	Interpretation	Rank
Evaluating	3.32	Highly Implemented	1
Planning	3.31	Highly Implemented	2

Executing	3.27	Highly Implemented	3
Purposing	3.24	Highly Implemented	4
Overall Mean	**3.29**	**Highly Implemented**	

Table 2 presents the comparability of school administrators' and teachers' perceptions regarding the implementation of Project-Based Learning (PBL) practices. The findings revealed a high degree of consistency across the four dimensions, with evaluating obtaining the highest mean score (M = 3.32), followed by planning (M = 3.31), executing (M = 3.27), and purposing (M = 3.24). The overall mean of 3.29 indicates that both groups perceived Project-Based Learning practices as highly implemented within their schools. The close similarity in ratings suggests a shared understanding of instructional priorities and pedagogical practices, particularly in the areas of assessment, lesson organization, learner participation, and instructional planning. Similar findings have been reported in recent educational studies indicating that effective implementation of project-based learning is strengthened when teachers and school leaders share common instructional goals and maintain collaborative professional relationships (Kokotsaki et al., 2021; Torres et al., 2023). Furthermore, educational leadership literature emphasizes that alignment between administrators and teachers contributes to greater instructional coherence, improved implementation fidelity, and enhanced student learning experiences (Leithwood et al., 2020; Hallinger & Kulophas, 2022). The high implementation of Project-Based Learning practices suggests that learners are provided opportunities for meaningful participation and active engagement, which have been associated with greater confidence, ownership of learning, and sustained motivation (Rubia et al., 2026).

The findings imply that the participating schools have established a collaborative instructional culture that supports the successful implementation of Project-Based Learning. The consistency in perceptions between administrators and teachers suggests that educational leaders effectively communicate instructional expectations and provide adequate support for learner-centered teaching practices. Such alignment is essential for sustaining educational innovations because it promotes shared responsibility, continuous improvement, and collective commitment to student learning outcomes. Strengthening collaborative planning sessions, instructional supervision, and professional learning communities may further reinforce Project-Based Learning practices and contribute to sustaining pupils' motivation, engagement, and academic success. While the high implementation ratings suggest favorable conditions for Project-Based Learning, successful implementation may also be influenced by contextual factors beyond instructional practices alone. These include the availability of instructional materials, administrative support, access to professional development opportunities, class size, and community involvement. Schools with stronger leadership support and adequate resources are generally better positioned to implement innovative pedagogical approaches effectively. Understanding these contextual conditions is important because they may shape both the quality and sustainability of Project-Based Learning initiatives within elementary education settings.

Table 3: Test of Significant Difference Between the Perceptions of School Administrators and Teachers on Project-Based Learning Practices

Respondent Group	Mean	t-value	Critical Value	Decision	Interpretation
School Administrators	3.29	0.348	2.447	Accept H_0	Not Significant
Teachers	3.29				

Level of Significance = 0.05

Table 3 presents the test of significant difference between the perceptions of school administrators and teachers regarding the implementation of Project-Based Learning practices. The computed t-value of 0.348 was lower than the critical value of 2.447 at the 0.05 level of significance, leading to the acceptance of the null hypothesis. This finding indicates that no significant difference exists between the perceptions of the two groups regarding the implementation of Project-Based Learning practices. The result suggests that school administrators and teachers share similar views concerning the effectiveness and implementation of project-based instructional strategies. Such consistency may indicate a common understanding of instructional goals, school priorities, and

learner-centered practices within the participating schools. Similar findings have been reported in studies emphasizing that collaborative leadership and shared pedagogical beliefs contribute to successful implementation of innovative instructional approaches and foster organizational coherence within educational institutions (Thibaut et al., 2021; Voogt et al., 2022). Moreover, schools characterized by strong professional collaboration often demonstrate greater consistency in instructional implementation and educational decision-making processes (OECD, 2023; Liu & Hallinger, 2024).

The findings imply that the implementation of Project-Based Learning within the participating schools is supported by a shared instructional vision among educational leaders and classroom teachers. The absence of significant differences in perceptions reflects a collaborative school culture where stakeholders maintain common expectations regarding teaching and learning processes. Such alignment is beneficial for sustaining learner-centered innovations because it promotes consistency in classroom practices, strengthens instructional support systems, and enhances the effectiveness of educational reforms. School leaders may capitalize on this shared understanding by further strengthening collaborative planning, mentoring, and professional learning initiatives that sustain Project-Based Learning practices and contribute to improved learner motivation and educational outcomes.

Table 4: Implications of Project-Based Learning Practices for Sustaining Pupils' Motivation

Project-Based Learning Practice	Key Finding	Implication for Pupils' Motivation
Purposing	Teachers established clear objectives and provided opportunities for learners to express individuality.	Enhances learners' sense of purpose, ownership, and intrinsic motivation toward learning activities.
Planning	Teachers considered individual differences and encouraged learner participation in planning activities.	Promotes engagement, autonomy, and active involvement in the learning process.
Executing	Teachers demonstrated willingness to work collaboratively with pupils and employed appropriate learning strategies.	Increases participation, confidence, and persistence in completing learning tasks.
Evaluating	Teachers regularly assessed learner progress and conducted reassessment when necessary.	Strengthens achievement motivation by providing feedback, reinforcement, and opportunities for improvement.

The findings demonstrate that the four dimensions of Project-Based Learning collectively sustain pupils' motivation through meaningful participation, collaboration, and continuous feedback. Among the dimensions, evaluating and planning emerged as the most prominent practices, indicating that teachers place substantial emphasis on monitoring learner progress and designing learning experiences that accommodate diverse learner needs. Research suggests that when students are actively involved in planning, implementing, and evaluating learning activities, they develop stronger intrinsic motivation, self-efficacy, and commitment to academic tasks (Ryan & Deci, 2020; Howard et al., 2021). Furthermore, project-based learning environments create opportunities for authentic learning experiences that increase learners' engagement and encourage deeper investment in the learning process (Khalaf & Zin, 2024; Murtiningsih et al., 2025). The findings imply that sustaining pupils' motivation requires the continued implementation of learner-centered instructional approaches that promote autonomy, collaboration, and reflective learning. Schools may strengthen motivation by encouraging teachers to involve pupils in goal setting, project planning, and self-assessment activities. Such practices align with Sustainable Development Goal 4 (Quality Education), which advocates for inclusive and effective learning environments that foster lifelong learning opportunities. By institutionalizing Project-Based Learning practices, schools can cultivate motivated learners who are more engaged, responsible, and capable of applying knowledge to real-world situations.

From the perspective of Self-Determination Theory (Ryan & Deci, 2020), the findings suggest that Project-Based Learning supports the three psychological needs associated with intrinsic motivation: autonomy, competence, and relatedness. Through active involvement in planning and executing projects, pupils are provided opportunities to exercise choice and autonomy. Continuous feedback during evaluation strengthens learners' sense of competence, while collaborative project activities foster meaningful social interactions and relatedness. These motivational mechanisms may explain why Project-Based Learning has consistently been associated with positive learner engagement across diverse educational settings.

LIMITATIONS OF THE STUDY

This study has several limitations that should be considered when interpreting the findings. First, the study was conducted only in selected public elementary schools within the Zamboanga Peninsula, which may limit the generalizability of the results to other regions or educational contexts. Second, the findings were based solely on the perceptions of school administrators and teachers, without directly measuring pupils' motivation, engagement, or academic performance. Consequently, the conclusions reflect stakeholders' assessments rather than objective learner outcomes. Third, contextual variables such as school resources, teacher training opportunities, leadership practices, and socio-economic conditions were not examined. However, these factors may influence the effectiveness of Project-Based Learning implementation. Future research should employ mixed-method or longitudinal approaches that incorporate direct measures of pupil motivation and achievement to provide more comprehensive evidence regarding the effectiveness of Project-Based Learning.

CONCLUSION

This study examined Project-Based Learning practices in public elementary schools in the Zamboanga Peninsula, Philippines, focusing on the dimensions of purposing, planning, executing, and evaluating. The findings revealed that Project-Based Learning practices were highly implemented across all dimensions, with evaluating and planning emerging as the most prominent instructional practices. The results further demonstrated a high degree of consistency between the perceptions of school administrators and teachers, as evidenced by the absence of a significant difference in their assessments of Project-Based Learning implementation. These findings suggest that participating schools have established a shared commitment to learner-centered instructional approaches that emphasize active participation, collaboration, and continuous assessment. Consequently, the effective implementation of Project-Based Learning practices may contribute to creating engaging and supportive learning environments that foster pupils' interest, participation, and sustained motivation to learn. The study underscores the importance of maintaining collaborative instructional leadership and innovative teaching practices to support quality education and enhance learner outcomes in elementary schools.

Although the findings indicate that Project-Based Learning practices are highly implemented and positively perceived by educational stakeholders, caution should be exercised when generalizing the results beyond the study context. The study relied on stakeholder perceptions rather than direct measures of pupil motivation and was conducted within a specific regional setting. Nevertheless, the results provide valuable evidence that learner-centered instructional practices characterized by purposeful planning, collaborative execution, and continuous evaluation can contribute to creating engaging learning environments. The study highlights the importance of sustaining institutional support, teacher capacity-building initiatives, and resource allocation to maximize the potential of Project-Based Learning in promoting quality elementary education.

RECOMMENDATION

1. The Department of Education (DepEd) may strengthen teacher training programs focused on Project-Based Learning design, implementation, and assessment to ensure consistency across schools.
2. School administrators may establish Professional Learning Communities (PLCs) that encourage teachers to share best practices, project designs, and assessment strategies related to Project-Based Learning.
3. Local government units and educational stakeholders may provide additional instructional resources and infrastructure support to facilitate the effective implementation of project-based activities.

4. Future studies may incorporate pupils' actual motivation scores, academic performance indicators, and qualitative interviews to validate the relationship between Project-Based Learning practices and learner outcomes.

Ethical Considerations

Ethical principles were strictly observed throughout the study. Before data collection, permission was obtained from the appropriate educational authorities and school administrators within the participating public elementary schools in the Zamboanga Peninsula, Philippines. Participation in the study was entirely voluntary, and all respondents were adequately informed about the purpose, procedures, and significance of the research before providing their consent. Respondents were assured that their participation or non-participation would not result in any form of penalty, discrimination, or adverse consequence.

To protect the rights and welfare of the participants, confidentiality and anonymity were maintained throughout the research process. No personally identifiable information was disclosed in any report, publication, or presentation arising from the study. The collected data were used solely for academic and research purposes and were stored securely to prevent unauthorized access. The study adhered to the fundamental ethical principles of respect for persons, beneficence, non-maleficence, and justice, ensuring that the rights, dignity, privacy, and well-being of all participants were safeguarded throughout the research.

Conflict of Interest

The authors declare no conflict of interest.

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