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The Implementation of Project-Based Deep Learning to Improve Students' Learning Engagement in Christian Religious Education for Grade XI at SMA Negeri 4 Palangka Raya

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Abstract

This study aims to describe the implementation of project-based deep learning in promoting student engagement in Grade XI Christian Religious Education at SMA Negeri 4 Palangka Raya. This research employed a qualitative approach with a descriptive design. Data were collected from one Christian Religious Education teacher and five students through interviews, observation, and documentation. The data were analyzed through reduction, display, and conclusion drawing. The findings reveal that project-based deep learning was implemented through Mindful Learning, Meaningful Learning, and Joyful Learning principles integrated into project activities. Student engagement was demonstrated through completing tasks, asking questions, seeking information, expressing opinions, participating in discussions, collaborating, solving problems, and applying Christian values. Supporting factors included teacher facilitation, student cooperation, peer support, digital resources, and project relevance to real-life contexts. Challenges involved limited time, unequal task distribution, difficulties finding relevant information, and differences of opinion. These challenges were addressed through discussion, collaboration, information seeking, and teacher guidance. Evaluation and reflection helped students review project outcomes, identify improvements, and understand Christian values. This approach supports active, meaningful, collaborative, and reflective learning.

Keywords Deep Learning, Project-Based Learning, Learning Engagement, Christian Religious Education

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INTRODUCTION

Education plays a fundamental role in human development because it provides opportunities for individuals to develop knowledge, skills, attitudes, character, and the ability to address various challenges in life. In the educational context, learning should not be limited to the transmission of information from teachers to students but should also encourage critical thinking, communication, collaboration, problem-solving, and the

application of knowledge in everyday situations (Mulyasa, 2021; Sanjaya, 2020). Therefore, effective learning requires students to participate actively in constructing their understanding through meaningful experiences, interaction, and reflection.

From a cognitive perspective, active student participation is consistent with Jean Piaget's theory of cognitive development, which emphasizes that learners actively construct knowledge through interactions with their environment. Piaget explains that new information is integrated into existing cognitive structures through assimilation and accommodated through adjustments when new experiences do not correspond to previous understanding (Khadijah, 2021). This perspective suggests that students need opportunities to explore information, ask questions, express opinions, discuss ideas, and solve problems. Learning becomes more meaningful when students are actively involved in processing information rather than merely receiving and memorizing it (Rusman, 2020). Student learning engagement is particularly important in Christian Religious Education (CRE), which aims not only to develop students' understanding of Christian teachings but also to nurture faith, moral character, responsibility, and the practical application of Christian values. Concepts such as love, honesty, compassion, responsibility, and respect for others require opportunities for students to connect religious knowledge with their everyday experiences. Consequently, CRE should provide learning experiences that encourage students to understand, internalize, and practice Christian values through active participation and reflection.

Initial observations at SMA Negeri 4 Palangka Raya indicated that some Grade XI students were reluctant to respond to learning materials, ask questions, or answer questions posed by the teacher. In group activities, some students also appeared less involved in completing shared assignments. These conditions indicate the need to examine learning approaches that provide greater opportunities for student participation. However, the issue is not simply the use of particular teaching methods; rather, it concerns how learning activities can encourage students to engage intellectually, socially, and emotionally in the learning process. One approach relevant to this need is *deep learning*. In education, deep learning emphasizes meaningful understanding, critical thinking, collaboration, creativity, and the application of knowledge to real-world situations. Fullan, Quinn, and McEachen (2018) explain that deep learning engages students in experiences that connect learning with authentic challenges and opportunities to develop competencies needed to participate meaningfully in the world. In the Indonesian educational context, the principles of *Mindful Learning*, *Meaningful Learning*, and *Joyful Learning* provide a useful framework for understanding learning experiences that emphasize awareness, relevance, and positive engagement (Hendrianty, 2024). These principles encourage students to participate consciously, connect new knowledge with prior experiences, and learn in supportive environments that promote interaction and confidence.

To translate these principles into practical classroom activities, project-based learning offers a relevant instructional approach. Through projects, students can identify problems,

gather information, plan activities, distribute responsibilities, collaborate with peers, develop products, present findings, and reflect on their experiences. These activities create opportunities for students to demonstrate engagement through questioning, discussion, information seeking, decision-making, problem-solving, and cooperation. In Christian Religious Education, projects can also connect biblical teachings and Christian values with real-life issues, allowing students to explore how religious principles can inform their attitudes and actions.

Previous studies have discussed the relevance of project-based learning and deep learning in Christian Religious Education. Karo Karo, Waruwu, and Jarang (2023) examined project-based instructional materials that encourage active learning through exploration, problem-solving, collaboration, and communication. Sitorus and Pakpahan (2025) discussed deep learning in Christian Religious Education through inquiry-based, experiential, collaborative, and reflective experiences that connect biblical understanding with students' spiritual development. Similarly, Tobeli et al. (2025) highlighted the potential of deep learning to support student engagement and character development, while Tumangger and Nainggolan (2025) emphasized the need for more dialogical, collaborative, contextual, and student-centered approaches to Christian Religious Education.

Despite these contributions, further investigation is needed into how deep learning principles are integrated with project-based learning in actual classroom practice and how student engagement emerges throughout the learning process. Understanding this integration requires attention to instructional planning, teacher facilitation, project implementation, group interactions, information gathering, presentations, evaluation, and reflection. Accordingly, this study does not seek to establish a statistically measured increase in student engagement. Instead, it aims to describe the implementation of project-based deep learning, identify the forms of student engagement that emerge, and examine the supporting factors and challenges encountered in Grade XI Christian Religious Education at SMA Negeri 4 Palangka Raya. Using a qualitative descriptive approach, this research is expected to provide a contextual understanding of how project-based deep learning creates opportunities for active, meaningful, collaborative, and reflective learning in Christian Religious Education.

METHODS

This study employed a qualitative approach with a descriptive research design to examine the implementation of project-based deep learning in promoting student engagement in Grade XI Christian Religious Education at SMA Negeri 4 Palangka Raya. A qualitative approach was selected because the research focused on understanding learning processes, classroom interactions, students' experiences, and the meanings they attributed to learning activities rather than measuring learning outcomes statistically. Qualitative research enables researchers to explore social and educational phenomena within their natural settings and interpret participants' perspectives in context (Creswell, 2018).

A descriptive design was considered appropriate because the study aimed to provide a comprehensive account of how project-based deep learning was implemented, how students participated in learning activities, and what factors supported or hindered their engagement. The study focused on the principles of Mindful Learning, Meaningful Learning, and Joyful Learning, as well as students' participation in discussions, information seeking, collaboration, problem-solving, project completion, and reflection. The research did not seek to establish a causal relationship or statistically demonstrate an increase in student engagement.

The research was conducted at SMA Negeri 4 Palangka Raya, located on Jalan Sisingamangaraja III No. 3, Menteng, Jekan Raya District, Palangka Raya, Central Kalimantan, Indonesia. The school was selected because it provided a relevant setting for examining project-based deep learning in Grade XI Christian Religious Education. Initial observations and preliminary discussions with the subject teacher indicated that some students participated less actively in classroom discussions, asked relatively few questions, and contributed unevenly to group assignments. These conditions provided a contextual basis for investigating classroom learning practices and student engagement. The research was planned for five months, from September to January. The activities included research preparation, proposal development and revision, classroom observation, data collection, data analysis, and report preparation. The specific schedule was adjusted to the school's academic calendar and the researcher's access to participants.

Participants were selected purposively because they were directly involved in or experienced the learning process under investigation. Purposive sampling enables researchers to identify information-rich participants who can provide relevant insights into the research questions (Creswell & Poth, 2018). The primary participants consisted of one Christian Religious Education teacher and five Grade XI students at SMA Negeri 4 Palangka Raya. The teacher was selected because of their responsibility for planning, implementing, facilitating, and evaluating classroom learning. The five students were selected to provide perspectives on their learning experiences, participation, collaboration, challenges, and reflections during project activities. Primary data were obtained through interviews and classroom observations. Secondary data included relevant instructional documents, such as lesson plans, teaching materials, learning modules, assessment records, and other school documents available and relevant to the research focus. These documents were used to contextualize and complement the information obtained from participants.

Data were collected through observation, semi-structured interviews, and documentation. These techniques were combined to develop a comprehensive understanding of the phenomenon and compare evidence obtained from different sources (Sugiyono, 2022). First, classroom observations were conducted to examine how the teacher implemented project-based deep learning and how students responded to the learning activities. Particular attention was given to the teacher's facilitation, project planning, group discussions, information seeking, task distribution, problem-solving, presentations, and

reflection. Student engagement was examined through observable participation, including asking questions, expressing opinions, completing responsibilities, cooperating with peers, and applying Christian values.

Second, semi-structured interviews were conducted with the teacher and five students. The teacher was asked about instructional planning, the implementation of deep learning principles, project management, assessment, and challenges encountered during instruction. Student interviews explored their experiences, perceptions, participation, collaboration, difficulties, and understanding of Christian values throughout the projects. This approach allowed participants to explain their experiences while enabling the researcher to pursue relevant issues through follow-up questions. Third, documentation was used to examine available lesson plans, teaching materials, assessment records, and photographs of learning activities, where permission was granted. Documentary evidence helped clarify the instructional context and support comparisons with observation and interview findings.

Data were analyzed using the interactive framework of Miles, Huberman, and Saldaña (2014), which comprises data condensation, data display, and conclusion drawing and verification. Data condensation involved selecting, organizing, and coding information relevant to the research questions. The data were categorized into themes concerning instructional implementation, student engagement, supporting factors, challenges, and evaluation and reflection. Data display involved organizing the findings into descriptive narratives and thematic categories to identify recurring patterns and relationships. Conclusion drawing and verification involved interpreting the patterns, comparing evidence across data sources, and examining whether the conclusions were consistently supported by the collected data. Analysis was conducted iteratively throughout the research process.

The trustworthiness of the findings was strengthened through source triangulation, technique triangulation, and member checking. Source triangulation involved comparing information from the teacher and student participants. Technique triangulation involved examining whether interview accounts were consistent with classroom observations and relevant documents. Member checking involved confirming selected interview summaries or interpretations with participants to reduce misunderstandings and improve the accuracy of the findings (Creswell & Poth, 2018). Ethical considerations were also addressed by seeking appropriate school permission, explaining the research purpose to participants, protecting their identities, and obtaining informed consent in accordance with applicable requirements. Participation was voluntary, and information was used for research purposes. Through these procedures, the study sought to produce a credible, contextualized description of project-based deep learning and student engagement in Christian Religious Education.

FINDINGS AND DISCUSSION

Implementation of Project-Based Deep Learning in Christian Religious Education (PAK) for Grade XI

The implementation of project-based deep learning in Grade XI Christian Religious Education (CRE) at SMA Negeri 4 Palangka Raya began with careful instructional preparation. The teacher informed students about the planned learning activities, prepared learning modules, explained the procedures for completing the projects, and introduced digital media, including social media and Canva. These preparations demonstrated that project activities were integrated into the instructional process rather than treated as supplementary assignments. Students were given an initial understanding of the learning objectives, expected tasks, and possible forms of project output. Such preparation is important because project-based learning requires students to understand the purpose of their activities, organize their responsibilities, collaborate with peers, and produce meaningful outcomes. This finding is consistent with Fullan, Quinn, and McEachen (2018), who emphasize that deep learning connects knowledge with real-world contexts and encourages students to develop competencies through meaningful learning experiences.

The findings can also be understood through Jean Piaget's cognitive development theory, which views learners as active constructors of knowledge through interaction with their environment. From this perspective, learning does not merely involve receiving information from the teacher; it also requires students to interpret information, connect new knowledge with previous experiences, and reconsider their understanding when encountering new situations (Piaget, 1970). During the project activities, students searched for information, asked questions, exchanged opinions, and discussed how Christian values could be represented in their work. These activities provided opportunities for students to process information and construct understanding through direct involvement. When they encountered difficulties, including limited time, unequal task distribution, conflicting opinions, and challenges in finding relevant information, they attempted to resolve them through discussion, information seeking, peer assistance, and consultation with the teacher. Such experiences illustrate the role of problem-solving and social interaction in students' learning processes.

At the beginning of the lesson, the teacher incorporated Mindful Learning through a prayer of gratitude concerning family and social relationships, followed by a moment of silence or brief reflection. This opening activity was intended to help students calm themselves, become aware of God's presence, and prepare mentally and spiritually for learning. In Christian Religious Education, this approach is relevant because learning involves not only intellectual understanding but also reflection on values and their implications for everyday life. By creating an opportunity for students to prepare themselves before engaging with the material, the teacher established a foundation for concentration, responsibility, and participation throughout the project. This practice also reflected the

broader orientation of deep learning, which emphasizes conscious engagement and students' active involvement in the learning process (Fullan et al., 2018).

The principle of Meaningful Learning appeared when the teacher connected Christian Religious Education materials with students' everyday experiences, particularly the roles of young people in church and society and the importance of social ethics. Students were encouraged to consider how Christian values, such as love, compassion, mutual assistance, and respect for others, could be expressed through concrete actions. One example was the creation of posters using Canva containing messages that encouraged students to love their classmates, help one another, and demonstrate mutual respect. Through this activity, abstract religious concepts were transformed into practical messages that students could communicate to their peers. This finding supports the view that meaningful learning occurs when students connect newly acquired knowledge with familiar experiences and recognize its relevance to real-life situations (Ausubel, 1968).

Meanwhile, Joyful Learning was reflected in the teacher's efforts to establish a supportive classroom atmosphere, appreciate students' contributions, and introduce ice-breaking activities after the material presentation. These practices helped reduce monotony and provided students with a more comfortable environment for expressing opinions and collaborating with their peers. A pleasant learning atmosphere did not eliminate the intellectual demands of the project; instead, it supported students' willingness to participate in discussions, offer suggestions, and work together. In this respect, the three principles—Mindful Learning, Meaningful Learning, and Joyful Learning—functioned as complementary elements of the learning experience rather than isolated instructional techniques.

The interviews with five students further illustrated the different forms of engagement emerging during the project. Anggriani participated in task distribution, scheduling, and resolving disagreements. Daniel searched for information, completed assigned work, joined discussions, and assisted classmates. Hera helped gather information, organize the project, and complete tasks on time. Delvira contributed by summarizing materials and designing project media using Canva, while Julia completed assigned tasks, expressed opinions about task allocation, and helped identify easier ways to finish the work. These accounts indicate that student engagement extended beyond verbal participation. It also involved information seeking, designing, organizing, collaborating, helping peers, and accepting responsibility for assigned tasks. This interpretation is consistent with Fredricks, Blumenfeld, and Paris (2004), who conceptualize student engagement through behavioral, emotional, and cognitive dimensions.

Compared with the initial classroom conditions described by the teacher, in which some students were reluctant to ask questions, remained silent when questioned, and participated less actively in group activities, project-based learning created broader opportunities for involvement. The teacher described students as "very active and enthusiastic" during the activities. Nevertheless, these findings should be interpreted as

qualitative evidence of engagement within the observed learning context rather than statistical proof of increased participation or a causal effect. Overall, the findings suggest that project-based deep learning provided opportunities for students to connect Christian teachings with practical experiences, construct understanding through collaboration, and express engagement in diverse ways. Its contribution lay in creating a learning environment that encouraged active participation, meaningful reflection, and the application of Christian values in everyday life.

Forms of Student Learning Engagement During Implementation

The findings indicate that student engagement during the implementation of project-based deep learning in Grade XI Christian Religious Education (CRE) at SMA Negeri 4 Palangka Raya emerged in several interconnected forms, including task responsibility, information seeking, asking questions, expressing opinions, collaboration, problem-solving, and applying Christian values. These activities suggest that student engagement was not limited to answering the teacher's questions but extended to students' cognitive, behavioral, and social involvement throughout the learning process. Fredricks, Blumenfeld, and Paris (2004) explain that student engagement encompasses behavioral engagement, emotional engagement, and cognitive engagement. This framework helps interpret the findings because students demonstrated participation through observable actions, interpersonal relationships, and efforts to understand and complete their projects.

One prominent form of engagement was students' responsibility for completing assigned tasks. Each group member was expected to contribute to the collective project according to their abilities and agreed responsibilities. Anggriani played an important role in organizing task distribution and scheduling, while Daniel searched for information and assisted classmates. Hera focused on completing assignments on time, Delvira contributed to content preparation and visual design, and Julia completed her assigned work while offering suggestions concerning task allocation. These different contributions demonstrate that students could participate in various ways depending on their roles and strengths. Project-based learning made responsibility more concrete because each student's contribution was connected to the group's overall progress. When one member failed to complete a task, the completion of the entire project could be affected. This finding is consistent with Karo Karo, Waruwu, and Jarang (2023), who discuss project-based learning as an approach that encourages active participation in Christian Religious Education. Responsibility, therefore, became both an individual obligation and a commitment to the group.

Another important form of engagement was asking questions and seeking information from multiple sources. Students did not always depend on the teacher when encountering difficulties. Anggriani and other students explained that they often consulted their peers first and sought the teacher's guidance when the problem remained unresolved. Daniel used Google, ChatGPT, and various websites to obtain information, while Hera consulted books, the internet, and other relevant sources. Delvira explored online articles and YouTube

tutorials, whereas Julia searched Google and discussed relevant information with her group. These practices illustrate that information seeking became an integral part of the learning process. Students needed to identify their information needs, locate relevant materials, evaluate their suitability, and use the information to complete the project. Such activities reflect cognitive engagement because learners actively process information instead of merely receiving explanations. However, the use of digital resources alone does not necessarily demonstrate deep learning; its educational value depends on whether students critically select, understand, and apply the information they obtain.

Group discussions and collaboration also played a central role in students' learning experiences. Anggriani described the exchange of ideas, fair task distribution, mutual assistance, and openness to suggestions. Daniel explained that his group planned the project, divided responsibilities, helped one another, and reviewed individual contributions before combining them. Hera emphasized equal task distribution and cooperation, while Delvira described discussions as democratic because each member had opportunities to express opinions. Julia reported that disagreements were addressed through discussion until the group reached a shared decision. These findings suggest that collaboration involved more than dividing work; it required communication, negotiation, listening, and collective decision-making. Johnson and Johnson (2009) emphasize the importance of positive interdependence and individual accountability in cooperative learning. In this study, these principles were reflected in the relationships between individual contributions and the group's shared objectives.

Problem-solving provided another opportunity for students to demonstrate active engagement. When difficulties arose, students attempted to identify the problem, search for relevant information, discuss possible solutions, and seek assistance when necessary. Anggriani described consulting books and the internet before asking peers or the teacher. Daniel and Julia emphasized discussion and information seeking, while Delvira initially attempted to solve problems independently before consulting the group. These accounts indicate a gradual problem-solving process involving independent effort, collaboration, and guidance. Such practices are relevant to project-based learning because students may need to revise their initial ideas and improve their work before achieving an appropriate outcome. Thomas (2000) argues that project-based learning involves meaningful tasks that require students to investigate and develop solutions to questions or problems. Consequently, the learning process should be considered alongside the final product when evaluating students' engagement.

The application of Christian values further distinguished student engagement in CRE from participation in project activities alone. Students connected their projects and group interactions with love, humility, mutual assistance, responsibility, respect for differences, and concern for others. These values appeared in their willingness to help classmates, listen to different opinions, distribute tasks fairly, and work toward common goals. Sitorus and Pakpahan (2025) highlight the relevance of deep learning to biblical understanding and

students' spirituality in Christian Religious Education. In the present study, the integration of Christian values provided opportunities for students to connect religious knowledge with interpersonal conduct. The project therefore served as a context in which students could consider how Christian teachings might guide their actions and relationships.

Overall, the findings show that student engagement emerged through multiple forms of participation rather than a single observable behavior. Responsibility, information seeking, discussion, collaboration, problem-solving, and the application of Christian values were interconnected throughout the project activities. These findings suggest that project-based deep learning created opportunities for students to take more active roles in constructing knowledge and working with others. Nevertheless, the evidence represents qualitative descriptions of participants' experiences in a specific school context; it does not establish a statistically measured increase in engagement or prove a causal relationship. Its significance lies in demonstrating how project activities can provide meaningful opportunities for students to participate, reflect, collaborate, and connect Christian teachings with everyday experiences.

Supporting Factors and Challenges in Implementation

The findings indicate that the implementation of project-based deep learning in Grade XI Christian Religious Education (CRE) at SMA Negeri 4 Palangka Raya was supported by several interconnected factors, including teacher facilitation, the integration of Mindful Learning, Meaningful Learning, and Joyful Learning, peer cooperation, digital learning resources, school support, and the relevance of project activities to students' everyday lives. These factors contributed to creating learning experiences in which students could participate actively, collaborate with others, and connect religious knowledge with practical situations. Fullan, Quinn, and McEachen (2018) emphasize the importance of engaging students in meaningful learning experiences that encourage collaboration, deeper understanding, and the application of knowledge. In this study, the three learning principles provided a framework for organizing classroom activities, while the teacher's guidance helped ensure that project work remained connected to the objectives of Christian Religious Education.

Teacher facilitation emerged as one of the most important supporting factors. The teacher explained the learning materials, provided directions for project completion, responded to students' difficulties, and offered feedback when necessary. Rather than controlling every stage of the activity, the teacher allowed students to explore information, exchange ideas, and develop solutions independently before intervening when guidance was required. This approach created opportunities for students to take greater responsibility for their learning while maintaining appropriate instructional support. According to Thomas (2000), project-based learning involves meaningful tasks through which students investigate questions, develop solutions, and construct knowledge. The findings suggest that teacher facilitation was important not only for clarifying instructions but also for maintaining the connection between project activities and the intended learning outcomes.

Peer cooperation also supported students' participation. When a student encountered difficulties understanding the material or completing a technical task, other group members could provide explanations and assistance in a more informal and accessible manner. Students also found learning more engaging when they could apply the material through practical projects rather than simply listen to explanations. This finding reflects the significance of social interaction and cooperation in learning. Johnson and Johnson (2009) explain that cooperative learning can promote positive interdependence and individual accountability when students work toward shared goals while remaining responsible for their own contributions. In the present study, mutual assistance, task sharing, and discussion helped students address difficulties and sustain progress toward completing their projects.

The availability of digital resources further supported the learning process. Students used search engines, websites, digital articles, online videos, and artificial intelligence tools to obtain information relevant to their assignments. These resources expanded opportunities for independent learning, particularly when students needed additional explanations or practical guidance for developing project materials. However, access to digital information did not automatically guarantee meaningful learning. Students still needed to assess the relevance of information, compare sources, and select materials appropriate to the project. Therefore, digital resources were most useful when combined with teacher guidance, peer discussion, and students' efforts to understand and apply the information they discovered.

Despite these supporting factors, the implementation also encountered several challenges. The teacher identified the preparation of suitable learning materials and project activities as demanding tasks. Time management was another concern because the teacher needed to balance material presentation with sufficient opportunities for project work. These findings demonstrate that project-based learning requires careful planning, particularly when instructional objectives must be achieved within a limited classroom schedule. Thomas (2000) highlights the importance of organizing projects around meaningful learning objectives rather than treating them merely as activities for producing final outputs. Accordingly, teachers need to ensure that project preparation, implementation, and evaluation remain aligned with the intended learning outcomes.

Students experienced additional challenges involving limited time, unequal task distribution, passive group members, difficulties locating relevant information, and disagreements over project decisions. Anggriani identified problems related to scheduling, unequal responsibilities, passive participation, and hesitation to express differing opinions. Daniel and Hera encountered difficulties finding appropriate information and reconciling different perspectives. Delvira reported challenges in balancing the time required to understand theoretical concepts with the demands of project completion, including coordinating schedules outside school hours. Julia experienced similar difficulties concerning time, information selection, task distribution, and differing opinions. These experiences indicate that active participation does not necessarily mean that the learning

process proceeds smoothly. Instead, collaboration can expose students to practical problems that require communication, negotiation, and shared decision-making.

The ways students and teachers responded to these challenges formed another important aspect of the findings. Students generally attempted to identify the source of a problem and search for relevant information before discussing possible solutions with their peers. When these efforts were insufficient, they sought assistance from the teacher. Groups could redistribute responsibilities when workloads became unbalanced and discuss alternative solutions when disagreements arose. The teacher provided explanations, technical assistance, and feedback without taking over the entire problem-solving process. This approach allowed students to retain responsibility while receiving guidance when necessary. From the perspective of cooperative learning, such practices support shared responsibility and constructive interaction among group members (Johnson & Johnson, 2009).

Overall, the findings suggest that the implementation of project-based deep learning depended on the interaction between instructional planning, teacher support, peer relationships, digital resources, and classroom conditions. Its challenges were not merely obstacles but also opportunities for students to practice problem-solving, communication, responsibility, and cooperation. Within Christian Religious Education, these experiences also provided opportunities to enact values such as mutual assistance, respect, humility, and responsibility. Nevertheless, the findings represent qualitative descriptions of the experiences reported in this particular school context and should not be interpreted as statistical evidence of effectiveness. They demonstrate how supportive conditions and appropriate responses to challenges can create opportunities for meaningful student engagement.

Evaluation and Reflection as Part of Learning

Evaluation in the implementation of project-based deep learning in Grade XI Christian Religious Education (CRE) at SMA Negeri 4 Palangka Raya encompassed both the quality of students' project outcomes and the processes through which those outcomes were developed. During project activities, the teacher provided guidance and feedback when students encountered difficulties, while students reviewed their work, corrected inappropriate sections, and discussed disagreements within their groups. This approach indicates that evaluation was integrated into the learning process rather than conducted exclusively at the end of the activity. Thomas (2000) explains that project-based learning involves meaningful tasks that require students to investigate problems and develop solutions. From this perspective, the learning process is as important as the final product because it reveals how students apply knowledge, respond to challenges, and improve their work.

Reflection also connected project experiences with the values emphasized in Christian Religious Education. Students had opportunities to consider not only whether their projects were completed but also how they collaborated, responded to different opinions, fulfilled

their responsibilities, and practiced love and mutual respect. These considerations are particularly relevant to CRE because learning objectives extend beyond the acquisition of religious knowledge to the application of Christian values in everyday relationships. Kolb (1984) emphasizes the role of reflection in transforming experience into learning. Applied to this study, reflection provided a way for students to consider what they had experienced during the project, identify difficulties, and recognize how their actions related to the values discussed in class. Nevertheless, the findings describe the reflective opportunities provided through the learning process; they do not establish that every student achieved the same level of personal or spiritual development.

The overall implementation followed an interconnected sequence beginning with instructional preparation, followed by an opening activity designed to develop awareness, the connection of learning materials with real-life experiences, collaborative project work, and evaluation and reflection. Throughout the process, students searched for information, asked questions, exchanged ideas, solved problems, and revised their work. This sequence demonstrates how project-based learning and deep learning complemented one another. The principles of Mindful Learning, Meaningful Learning, and Joyful Learning provided an orientation for the quality of the learning experience, while project activities offered practical opportunities for students to participate, collaborate, and apply their understanding. Fullan, Quinn, and McEachen (2018) emphasize the importance of meaningful engagement, collaboration, and the application of knowledge in deep learning. In this study, those principles were reflected in the integration of religious content, student interaction, and practical project activities.

The findings also demonstrate substantial similarities with the research of Karo Karo, Waruwu, and Jarang (2023), which discusses project-based learning as a means of encouraging active participation and meaningful experiences in Christian Religious Education. In the present study, students did not simply receive explanations of CRE materials; they searched for information, distributed responsibilities, participated in discussions, developed project materials using digital tools such as Canva, and connected Christian values with their school experiences. Both studies highlight the relevance of project activities in providing opportunities for exploration, cooperation, communication, and problem-solving. However, the present study offers a more contextualized description of how project-based learning was implemented alongside the principles of Mindful Learning, Meaningful Learning, and Joyful Learning. It also examines the different forms of student engagement, the challenges encountered, and the strategies used by students and teachers to address them.

The findings are also related to the study by Sitorus and Pakpahan (2025), which discusses deep learning in Christian Religious Education in relation to biblical understanding and spirituality. In the current study, this relationship can be observed in the way students developed an understanding of Christian teachings, interacted with others while completing projects, and practiced values such as love, responsibility, humility, and

respect. These findings suggest that learning in CRE can connect knowledge, personal attitudes, and practical action. Nevertheless, the present research focuses specifically on the classroom implementation of project-based deep learning and the forms of engagement reported by participants, rather than measuring changes in biblical understanding or spirituality.

Furthermore, the findings correspond with the research of Tobeli et al. (2025), which emphasizes student engagement, independence, responsibility, and character development through deep learning in Christian Religious Education. In this study, these dimensions were reflected in students' willingness to complete assigned tasks, search for information independently, cooperate with peers, resolve problems, and assist classmates. The findings also relate to Tumangger and Nainggolan (2025), whose discussion of transforming Christian Religious Education through deep learning and restorative approaches highlights the relevance of dialogic, collaborative, and contextual learning. Students in the present study participated in discussions, negotiated decisions, and considered different opinions rather than relying exclusively on teacher explanations. These experiences illustrate how project-based learning can create opportunities for more student-centered classroom interactions.

Taken together, the findings extend the discussion of project-based deep learning by providing a detailed account of its implementation from preparation to evaluation and reflection in one Grade XI CRE classroom. The study shows that student engagement took multiple forms, including task responsibility, information seeking, collaboration, problem-solving, and the practical application of Christian values. It also reveals that active learning does not mean the absence of difficulties. Limited time, unequal task distribution, passive group members, information-selection problems, and disagreements continued to arise. However, the ways students responded to these challenges provided opportunities to practice communication, negotiation, independence, and mutual assistance. The contribution of this study therefore lies in describing the learning processes through which engagement emerged within a specific educational context. Because the research employed a qualitative descriptive design, these findings should be interpreted as contextual evidence of students' experiences rather than statistical proof of increased engagement or a causal demonstration of effectiveness.

CONCLUSION

This study concludes that the implementation of project-based deep learning in Grade XI Christian Religious Education (CRE) at SMA Negeri 4 Palangka Raya integrated the principles of Mindful Learning, Meaningful Learning, and Joyful Learning into classroom activities. The teacher prepared students through prayer and reflection, connected learning materials with real-life experiences, and established a supportive learning environment. Through project activities, students searched for information, distributed tasks, discussed ideas, collaborated, solved problems, and developed project outputs under the teacher's guidance. Student engagement appeared in various forms, including fulfilling

responsibilities, asking questions, expressing opinions, seeking information, participating in discussions, helping peers, improving project outcomes, and applying Christian values. Engagement differed according to students' roles and contributions within their groups. Supporting factors included teacher facilitation, peer cooperation, digital learning resources, and the relevance of projects to everyday life. However, challenges involved limited time, unequal task distribution, passive group members, difficulties selecting relevant information, and disagreements among students. These challenges were addressed through discussion, task redistribution, independent information seeking, peer assistance, and teacher guidance.

Evaluation and reflection enabled students to review their work, identify areas for improvement, and consider how Christian values were practiced during collaboration. Overall, project-based deep learning provided opportunities for meaningful participation, responsibility, cooperation, problem-solving, and reflection in CRE learning. These findings describe students' experiences within the research context rather than statistically measured improvements in engagement.

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