



## The Implementation of Project-Based Learning to Cultivate Discipline and Responsibility Among Sixth-Grade Elementary Students

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### ABSTRACT

This study aims to describe the role of teachers in implementing Project Based Learning (PjBL) as a learning strategy to develop discipline and responsibility among sixth-grade elementary school students. This study employed a descriptive qualitative approach with a case study design. Data were collected through observation, interviews, and documentation involving teachers and students during the learning process. The results show that the implementation of PjBL fosters students' discipline through habits of time management, adherence to rules, maintaining order, and self-regulation in social interactions. In addition, responsibility is developed through active participation in task completion, willingness to acknowledge mistakes, engagement in group work, and social awareness. Structured project activities encourage students to be more active and responsible in learning. This study is limited by its focus on a single school and the use of a qualitative approach that does not measure effects quantitatively. Therefore, future research is recommended to involve broader subjects and combine quantitative methods to examine the effectiveness of PjBL more comprehensively.

## 1. Introduction

Education at the elementary school level is not solely oriented toward the development of cognitive abilities but also plays a crucial role in shaping students' character. At this developmental stage, students are in a critical period for forming values, attitudes, and habits that will influence their future behavior. Therefore, character education becomes an integral part of national education goals, emphasizing not only academic achievement but also the development of morally grounded, responsible individuals who are capable of engaging positively in social life (Mustika et al., 2024). Character education at the elementary level serves as a

fundamental foundation for fostering positive attitudes and behaviors that will persist into subsequent stages of education (Arifin & Pitriyanita, 2022).

One of the essential character values to be instilled from an early age is discipline. Discipline is associated with students' ability to follow rules, value time, and consistently carry out tasks in accordance with established school regulations (Wulandari et al., 2023). Early cultivation of discipline helps students develop structured learning habits and enhances the effectiveness of the learning process (Qonita et al., 2022). In addition to discipline, responsibility is another key character value, as it relates to students' awareness of fulfilling obligations and accepting the consequences of their actions (Kusianawati & Tirtoni, 2022).

However, various studies indicate that the implementation of discipline and responsibility among elementary school students still faces several challenges. In classroom practice, some students are still found to arrive late, fail to comply with classroom rules, neglect to bring learning materials, and delay completing assigned tasks. This condition suggests that students' awareness of disciplined and responsible behavior has not yet fully developed. Rosita et al. (2022) show that the level of student discipline in thematic learning remains at a "moderately good" level and requires continuous habituation to become embedded in daily behavior. A similar finding was reported by Syifa et al. (2022), indicating that students' discipline and responsibility tend to decline when learning activities do not actively engage them.

In this context, teachers play a pivotal role in the process of character formation. Teachers are not only responsible for delivering instructional content but also act as role models, facilitators, and mentors who guide students in understanding and internalizing character values in everyday life. Teachers' exemplary behavior in demonstrating discipline and responsibility serves as a concrete model that influences students' behavior during learning activities (Prihatini et al., 2024). Furthermore, the teacher's role as a classroom manager and motivator is essential in creating a learning environment that supports character development (Nurhasanah et al., 2024).

One instructional approach considered relevant for fostering character values is Project Based Learning (PjBL). This model emphasizes students' active involvement in project activities related to real-world problems. Through project-based activities, students are trained to plan tasks, manage time, collaborate in groups, and complete responsibilities effectively (Pasca & Mugara, 2021). PjBL also provides opportunities for students to develop critical thinking, creativity, and collaboration skills through authentic learning experiences (Ratminingsih et al., 2017). In addition, the implementation of PjBL has been shown to improve learning outcomes and student engagement, which indirectly fosters teamwork and responsibility in the learning process (Maulida & Rusnilawati, 2023).

Previous studies have demonstrated that Project Based Learning has a positive impact on students' character development. Ainurrohman et al. (2024) found that PjBL enhances student discipline through structured project activities that require

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systematic planning and implementation. Similarly, Susetyarini et al. (2019) reported that project-based learning improves students' motivation and responsibility in completing group tasks. Moreover, PjBL has been positively associated with student motivation and learning outcomes (Susanti et al., 2025). Active engagement in group work and the exchange of ideas during project activities foster a sense of responsibility, enhance collaboration, and strengthen student involvement in learning.

Despite the growing body of research highlighting the effectiveness of PjBL in improving student character, most studies primarily focus on learning outcomes or attitudinal improvements. Research that specifically examines the role of teachers in implementing Project Based Learning as a strategy to foster discipline and responsibility among elementary school students remains limited. In fact, the success of any instructional model largely depends on how teachers design, implement, and facilitate the learning process. Based on these considerations, this study aims to describe the role of teachers in implementing Project Based Learning (PjBL) to foster discipline and responsibility among elementary school students. In addition, this study seeks to identify the supporting and inhibiting factors encountered by teachers in implementing PjBL as a means of character development.

## **2. Methodology**

This study employed a qualitative approach with a descriptive research design aimed at providing an in-depth description of the teacher's role in implementing Project Based Learning (PjBL) to foster discipline and responsibility among elementary school students. A qualitative approach was chosen as the study seeks to understand phenomena directly based on real conditions occurring in the classroom learning process. The research was conducted at SD Negeri 2 Malangjiwan, Colomadu, which was selected as the research site because it has implemented learning practices that integrate character values into teaching and learning activities. The research subjects consisted of a classroom teacher and elementary school students who were directly involved in the implementation of Project Based Learning. Informants were selected purposively, based on the consideration that they possessed relevant information aligned with the research focus.

Data were collected through observation, interviews, and documentation. Observation was used to examine the learning process and students' behaviors related to discipline and responsibility. Interviews were conducted with the teacher to obtain in-depth information regarding the teacher's role, instructional strategies, and the supporting and inhibiting factors in the implementation of Project Based Learning. Documentation was used to complement the data in the form of activity records, photographs, and other supporting documents. These three techniques enabled comprehensive and complementary data collection, consistent with Busetto et al. (2020), who emphasize that observation, interviews, and document analysis

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are effective in qualitative research for exploring processes and social dynamics in depth.

Data analysis was conducted using the interactive analysis model proposed by Miles et al. (2020), which consists of three stages: data reduction, data display, and conclusion drawing. Data reduction involved selecting and focusing on data relevant to the research objectives. The data were then presented in descriptive form to facilitate understanding of the research findings. The final stage involved drawing conclusions based on the results of the data analysis conducted systematically. To ensure data validity, this study employed source triangulation and technique triangulation. Source triangulation was conducted by comparing information obtained from different informants, while technique triangulation involved comparing data obtained from observation, interviews, and documentation. Through these techniques, the data are expected to achieve a high level of credibility, ensuring that the research findings are scientifically reliable.

### 3. Results and Discussion

The findings of this study were obtained through a combination of observations, interviews, and documentation conducted at SD Negeri 2 Malangjiwan, Colomadu. The data reveal that teachers play a significant role in implementing Project-Based Learning (PjBL) to foster students' discipline and responsibility in elementary school. In addition, several supporting and inhibiting factors influencing the implementation of this learning model were identified.

Following this process, the categorized findings are presented in Table 1.

Table 1. Data Categorization Matrix of Students' Discipline

No	Discipline Indicators	Data Sources	Key Findings
1	Punctuality	Interviews, Observations	Students start and complete tasks on time
2	Rule compliance	Interviews, Observations	Students follow rules after guidance
3	Task consistency	Observations, Documentation	Students complete project stages gradually
4	Orderliness & cleanliness	Observations	Students clean tools and classroom after activities
5	Self-control	Interviews, Observations	Students manage emotions during discussions

In terms of punctuality, students demonstrated consistent habits of starting activities and completing tasks within the designated time. A student stated, *"I always return to class before the lesson begins and complete my tasks on time."* This indicates students' awareness of time management during project activities. The teacher also emphasized, *"I always write the project timeline on the board and explain deadlines for each stage so students understand their responsibilities."* Observations showed that students immediately began working after receiving instructions and made efforts to complete tasks according to the schedule.

Regarding compliance with rules, students demonstrated orderly behavior during project activities. A student mentioned, *“I follow classroom rules during the project, such as not making noise and not disturbing others.”* The teacher explained, *“I instill rule compliance by explaining the reasons behind each rule before the project begins.”* Although minor violations were observed at the beginning, students gradually returned to orderly behavior after receiving guidance, resulting in a more conducive learning environment.

In terms of consistency in completing tasks, students were able to follow project stages systematically until completion. A student expressed, *“I always work seriously even when I feel tired.”* The teacher added, *“I divide tasks into clear steps so students can complete the project gradually.”* Observations indicated that students followed all stages of the project, from initial preparation to final product completion. Regarding maintaining order and cleanliness, students consistently demonstrated habits of maintaining the classroom environment during and after learning activities. A student stated, *“After finishing the task, I clean and organize the tools.”* The teacher noted, *“I habituate students to clean up before going home.”* Observations showed that students worked in a relatively orderly environment and actively participated in group cleaning activities at the end of the lesson.

In terms of self-control, students were able to manage social interactions within groups. A student stated, *“When there are differences of opinion, I try not to get angry and stay calm.”* The teacher emphasized, *“I teach students how to discuss properly and facilitate conflict resolution.”* Observations revealed that students took turns expressing their opinions and resolved differences through discussion. Overall, these findings indicate that the implementation of PjBL contributes significantly to the development of students’ discipline not only in academic aspects but also in social behavior through structured and sustained habituation. Following a similar analytical procedure, the findings related to students’ responsibility are presented in Table 2.

Table 2. Data Categorization Matrix of Students’ Responsibility

No	Responsibility Indicators	Data Sources	Key Findings
1	Task completion	Interviews, Observations	Students complete tasks independently
2	Rule adherence	Interviews	Students follow agreed rules
3	Admitting mistakes	Interviews, Observations	Students revise work after feedback
4	Active participation	Observations	Students engage in group discussions
5	Social awareness	Observations	Students help peers and maintain environment

In terms of timely task completion, students demonstrated a strong sense of awareness in completing tasks independently without constant reminders. A student stated, *“I try to finish tasks on time so I do not burden my group.”* This reflects a sense of individual accountability toward group success. The teacher emphasized, *“I set clear targets at each stage and involve students in agreeing on deadlines.”* Observations showed that most students completed tasks in accordance with their assigned roles.

Regarding adherence to rules, students showed a clear understanding of and commitment to agreed-upon rules. A student expressed, *“I follow the rules because they help maintain a comfortable classroom environment.”* The teacher explained, *“I emphasize that rules are made for the common good, not to restrict students.”* Observations indicated that students consistently complied with rules after receiving guidance, resulting in more organized and effective project activities. In terms of admitting mistakes, students showed openness and willingness in correcting errors during the learning process. A student stated, *“I admit my mistakes and try to fix them.”* The teacher noted, *“I create a safe environment so students are not afraid to admit mistakes.”* Observations revealed that students actively revised their work after receiving feedback, indicating a strong sense of responsibility toward their learning outcomes.

Regarding active participation, students were actively engaged in discussions and collaborative project work. A student stated, *“I actively participate in discussions and help my friends.”* The teacher explained, *“I assign roles fairly so each student has responsibility within the group.”* Observations showed that all group members contributed meaningfully to project activities, both in preparation and presentation. In terms of social awareness, students demonstrated cooperative behavior and concern for the learning environment. A student stated, *“I help friends who have difficulties and clean up after the project.”* The teacher emphasized, *“I instill values of mutual help and responsibility for classroom cleanliness.”* Observations showed that students collaboratively engaged in cleaning activities and assisting peers. Overall, these findings indicate that PjBL effectively fosters students’ sense of responsibility through active engagement, well-defined role distribution, and collaborative learning practices. The categorization of supporting and inhibiting factors identified during the implementation of PjBL is presented in Table 3.

Table 3. Data Categorization Matrix of Supporting and Inhibiting Factors

No	Category	Factors	Data Sources	Findings
1	Supporting	School culture	Interviews, Observations	Students are accustomed to discipline and order
2	Supporting	Instructional planning	Documentation	Projects are systematically designed
3	Supporting	Teacher role	Observations	Teachers actively guide students
4	Inhibiting	Initial motivation	Interviews	Students are not immediately focused
5	Inhibiting	Dependency	Observations	Students rely on teacher guidance
6	Inhibiting	External factors	Interviews	Gadget use affects concentration

The implementation of Project-Based Learning is supported by several key factors. One of the primary factors is school culture, where students are accustomed to disciplinary and responsible practices, such as punctuality, maintaining order, and participating in classroom duties. The teacher stated, *“Students are already used to coming on time, maintaining order, and doing class duties, so they are not surprised by project rules.”* Observations confirmed that students demonstrated readiness and orderly behavior when beginning activities.

Another supporting factor is systematic and well-structured instructional planning. The teacher systematically designed project activities with clear stages. As stated, “*I design PjBL modules with clear steps so students are not confused.*” Observations showed that students were able to follow the sequence of activities effectively, indicating that structured design facilitates project implementation.

The teacher’s active role as a facilitator also played a crucial role. The teacher monitored, guided, and provided feedback throughout the project. Students acknowledged the importance of this support, and observations confirmed active teacher involvement in guiding each group. Despite these supports, several challenges were identified. One major issue is students’ initial motivation, as some students were not immediately ready to engage in project-based learning. Observations showed that certain students required continuous guidance before becoming fully involved. Another challenge is students’ dependence on teachers and peers. Some students showed limited confidence and tended to rely on instructions before acting independently. This indicates that learning autonomy has not yet been fully developed.

Additionally, external environmental factors, particularly excessive gadget use outside school, negatively affected students’ concentration during lessons. Observations revealed that some students were easily distracted and needed frequent reminders to stay focused. Overall, supporting factors such as positive school culture, structured instructional design, and active teacher involvement significantly enhance the implementation of PjBL. However, inhibiting factors including low initial motivation, student dependency, and external distractions continue to pose challenges that require adaptive and sustained instructional strategies.

#### ***a. The Role of Teachers in Fostering Discipline through Project-Based Learning***

The implementation of Project-Based Learning (PjBL) not only enhances students’ conceptual understanding but also plays a significant role in fostering discipline through structured and sustained learning experiences. In the learning process, students are accustomed to following clearly defined stages, from planning to project completion, which systematically cultivate disciplined habits in time management and learning activities. Students were observed to begin tasks immediately after receiving instructions and consistently attempt to complete them within the designated timeframe, indicating the internalization of punctuality values in learning.

These findings confirm that PjBL promotes the development of students’ time management skills through systematic work stages (Wibawaningsih et al., 2022). Structured time management also enhances students’ awareness of academic responsibility (Prasetya & Prasetiawan, 2022), while direct involvement in real-world project tasks reinforces discipline in completing assignments on time (Ratna & Simanungkalit, 2025). Furthermore, project-based learning encourages active student engagement in structured tasks, thereby enabling them to develop time

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management skills and responsibility in completing tasks independently (Almulla, 2020).

In addition, the application of rules within project activities functions not only as a control mechanism but also as a means of gradually shaping disciplined behavior. Students adhered to classroom rules, such as using tools appropriately and taking turns in discussions, and were able to re-establish orderly behavior after receiving guidance. This indicates that habituation and reinforcement of rules in PjBL contribute to the gradual development of students' compliance. These findings are consistent with studies showing that the implementation of school rules plays a significant role in strengthening students' disciplinary character (Maulani et al., 2025). A conducive learning environment is also supported by transparent rules in group work (Sumilat et al., 2023) and sustained teacher intervention throughout the learning process (Salim et al., 2025). Moreover, PjBL encourages students to connect learning concepts with real-life contexts through structured activities, thereby fostering active engagement and orderly learning behavior (Abidin, 2020).

Furthermore, discipline is reflected in students' consistency in completing project tasks. Students followed all stages of the project in a continuous and structured manner, from preparation to final product completion, indicating the development of structured work habits and persistence. This finding supports previous research indicating that clear role distribution and project stages enhance students' consistency and perseverance (Salim et al., 2025). A step-by-step approach in PjBL also helps students remain focused until task completion (Juherni & Khalipah, 2025) and promotes full engagement throughout the project cycle (Rizki & Idris, 2025).

On the other hand, discipline extends beyond academic aspects to include maintaining the learning environment. Students developed habits of organizing tools and cleaning the classroom after project activities, reflecting awareness of order and cleanliness. This suggests that PjBL integrates disciplinary values into everyday learning practices. These findings align with studies indicating that PjBL increases students' awareness of cleanliness through reflection and hands-on practice (Aryani et al., 2024). Such practices also support the development of students' ecoliteracy (Sopiani et al., 2019), and strengthen environmental responsibility through project-based activities (Jamilah et al., 2024).

Additionally, group interactions contribute to the development of students' self-control. Students were able to express opinions in turn and resolve differences through discussion without significant conflict. This indicates that PjBL not only develops academic skills but also strengthens students' capacity for self-regulation within social learning contexts. These findings are supported by research showing that collaborative and interactive learning activities can enhance students' emotional engagement and self-regulation skills (Linajaya et al., 2024). Positive interactions in group discussions also strengthen collaboration skills (Yanti et al., 2025), supported by the teacher's role as a mediator in managing group dynamics (Jumiatmoko et al., 2023).

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However, these findings should be interpreted within the specific context of the research setting. The school's pre-existing culture of discipline, such as habitual punctuality and orderly behavior, likely contributed to the positive outcomes observed. This indicates that the effectiveness of PjBL in fostering discipline is not solely determined by the instructional model itself but is also shaped by contextual factors, including students' prior habits and the broader school environment. Consequently, in school contexts where disciplinary culture is less established, the implementation of PjBL may yield different outcomes.

### ***b. The Role of Teachers in Fostering Responsibility through Project-Based Learning***

The implementation of Project-Based Learning (PjBL) not only increases student engagement but also effectively fosters responsibility through learning experiences that require active individual contributions. In project activities, students realize that group success depends on each member's role, which motivates them to complete tasks in accordance with their assigned responsibilities. Students were able to complete tasks without constant reminders, indicating the development of individual responsibility in learning. These findings are consistent with research showing that teachers' roles in setting project timelines and guiding fair task distribution significantly enhance students' responsibility toward group success (Hayatinnufus et al., 2023). Clear time planning also promotes student autonomy in completing tasks (Nadlir et al., 2024), while structured teacher guidance supports systematic and responsible project completion (Saputri et al., 2024).

Responsibility is also reflected in students' adherence to agreed rules. During project activities, students followed agreements such as using tools properly and maintaining order during discussions. This demonstrates that responsibility is both individual and collective in ensuring smooth learning processes. These findings align with studies indicating that group agreements in PjBL foster responsibility toward rules (Akyun et al., 2023). Compliance is further reinforced by the need for collaboration in achieving project goals (Syaidah & Afrizal, 2023) and consistent teacher enforcement of rules (Oktavianti et al., 2024).

Moreover, responsibility is evident in students' willingness to admit mistakes and make improvements. Students were not hesitant to revise their work after receiving feedback and viewed mistakes as part of the learning process. This reflects the development of reflective attitudes. These findings are supported by studies showing that reflection and feedback in PjBL increase students' awareness of errors (Widarni, 2023). Evaluation and revision processes also strengthen reflective thinking (Kurniawan et al., 2025) and promote self-regulation skills (Brinkman, 2024).

Responsibility is further demonstrated through active participation in group activities. Students were involved in discussions, project completion, and presentations, ensuring no member remained passive. This indicates that PjBL encourages direct engagement in the learning process. These findings align with research showing that PjBL enhances student participation through collaborative

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work (Silitonga et al., 2025). Engagement is also supported by opportunities for problem-solving (Amaliya & Kubro, 2025) and increased learning activity through group interaction (Rahmawati et al., 2024). Furthermore, project-based learning enhances student engagement and motivation through collaborative, real-world contextual activities (Beacom, 2025).

In addition, responsibility develops in the form of social awareness. Students helped peers who encountered difficulties and collaborated in maintaining classroom cleanliness after project activities. This indicates that responsibility extends beyond academic tasks to social and environmental aspects. These findings confirm that PjBL enhances social skills such as empathy and cooperation (Rizal, 2025), strengthens caring attitudes toward others (Landani & Lingga, 2025), and promotes prosocial behavior in learning contexts (Prastyo et al., 2024).

Nevertheless, it is important to acknowledge potential methodological limitations. The data in this study were primarily obtained through interviews and observations, which may involve a degree of subjectivity. Students' responses during interviews may reflect socially desirable answers, particularly within the school context. Additionally, the teacher's dual role as both facilitator and primary informant may influence data interpretation. Therefore, the findings should be understood as context-specific and not fully generalizable to all elementary school settings.

### ***c. Supporting and Inhibiting Factors in the Implementation of PjBL***

The successful implementation of Project-Based Learning is supported by several key factors. One major factor is school culture, which promotes character development through habituation practices such as punctuality, maintaining order, and participating in classroom duties. These habits serve as a foundation that facilitates students' engagement in project-based learning. In addition, systematic instructional planning through PjBL-based teaching modules enables structured project implementation. Contextual project design also helps students understand and carry out tasks more effectively, thereby increasing their engagement. These findings are consistent with research indicating that school policy support and well-prepared instructional modules are crucial for successful PjBL implementation (Rohimah et al., 2025). Relevant project design also enhances learning effectiveness (Listiana et al., 2025), while active teacher involvement strengthens the implementation process (Widadi et al., 2025).

However, several challenges were identified. Low initial student motivation poses a challenge, particularly when students are not accustomed to active learning approaches. In addition, students' dependence on teachers and parents indicates that learning autonomy is not yet fully developed. External factors, such as excessive gadget use, also affect students' concentration during learning activities. These findings are consistent with studies showing that lack of motivation and readiness are obstacles in implementing PjBL (Rahmayani et al., 2025). Challenges in fostering student independence are also noted in project-based learning contexts (Nafia et al., 2025), while external environmental factors influence student engagement (Cantika et al., 2025).

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Beyond these factors, the limitations of this study should be considered when interpreting the findings. This research was conducted in a single school with a limited number of participants, which may affect the external validity and transferability of the results. The school's already well-established disciplinary culture may have amplified the effectiveness of PjBL, meaning that the findings may not fully represent conditions in schools with different characteristics. In addition, the use of qualitative methods such as interviews may introduce subjectivity, as responses are influenced by participants' perceptions and experiences. Although triangulation techniques were employed, potential bias in data interpretation cannot be entirely eliminated. Therefore, the findings should be understood within the specific context of this study.

Despite these limitations, this study contributes both theoretically and practically. Theoretically, it reinforces the understanding that PjBL is not only a cognitive learning model but also an approach that facilitates character development through contextual and experiential learning. Practically, the findings provide insights for elementary school teachers on the importance of structured instructional design, clear role distribution, and continuous guidance in fostering discipline and responsibility. These findings further suggest that the success of PjBL is influenced not only by the model itself but also by contextual factors such as school culture and teacher support. Therefore, the effectiveness of PjBL is shaped by the interaction between instructional design, teacher roles, and the learning environment. Future research is recommended to involve a larger number of participants and employ mixed-method approaches to provide a more comprehensive understanding of PjBL implementation across diverse educational contexts.

#### **4. Conclusion**

Based on the findings and discussion, it can be concluded that teachers play a crucial role in implementing Project-Based Learning (PjBL) to foster discipline and responsibility among elementary school students. This role is reflected in the teacher's function as a facilitator, guide, and role model who is able to design structured learning, establish clear rules, and support students throughout each stage of the project. The implementation of PjBL has been shown to contribute to the development of students' discipline through habits such as time management, rule compliance, maintaining order, and self-control in social interactions. In addition, students' sense of responsibility develops through active involvement in task completion, the willingness to admit mistakes, participation in group work, and care for peers and the learning environment. The successful implementation of PjBL is supported by a conducive school culture, systematic instructional planning, and the active role of teachers in facilitating and monitoring project activities. However, several challenges remain, including low initial student motivation, dependence on teachers, and external environmental influences that affect students' learning concentration. Therefore, Project-Based Learning can serve as an effective instructional strategy to support character education in elementary schools,

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particularly in fostering students' discipline and responsibility in a sustainable manner.

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