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## The Role of Parents in Supporting Students' Literacy Activities at Home at Elementary School Level

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### Abstract

This study aims to analyze the role of parents in supporting children's literacy at home and the factors that cause low interest in literacy in students at SD N 102004 Tiga Juhar. This study uses a qualitative method with a case study approach, where data is collected through observation, interviews, and documentation. The results of the study indicate that low interest in literacy in students is caused by a lack of reading habits, minimal reading resources available, low parental guidance, and lack of awareness of the importance of literacy. In addition, excessive use of gadgets is also an inhibiting factor in the development of children's literacy. The role of parents is very important in creating a conducive literacy environment, such as by providing reading materials, reading stories, and building reading habits at home. With the active involvement of parents, children's literacy can develop optimally, thereby improving their academic achievement

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### Keywords

Literacy; Parental Role; Reading Interest; Children's Learning; Case Studies

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### Introduction

The role of parents in children's literacy at home is very important. Where parents as guides and educate children at home, the role of parents is also as teachers and role models for children in literacy, because parents are the first to become teachers for them who teach them to read books from an early age, become good literacy models, provide diverse reading materials, monitor and support the development of children's literacy. By carrying out these roles, parents can help children develop strong literacy skills and instill positive reading habits from an early age.

Literacy activities at school can be carried out by students by reading books at school, having discussions and presentations in class, visiting the library, and such as writing activities in class. By implementing various literacy activities at school, students' skills in reading and critical thinking can be developed which are very important for the success of their lives in the future. In elementary school literature classes, one of the problems faced is that when students

study at school, they often find it difficult to read to each other out loud. There are references owned by teachers, lack of mastery of teachers in the use of technology, quota or internet signal and teachers do not have enough time to accompany children in reading, reading is not interesting, and difficulty in accessing reading.

However, based on initial observation data taken from SD N 102004 TIGA JUHAR, students at the school are indicated to have minimal literacy. This is based on the results of interviews with class teachers regarding students' literacy skills. The majority of students at this school tend to be lazy when asked to read a text. On another occasion, when interviews were conducted with several students at this school, the students stated that they did not know the importance of literacy for them. This causes students' motivation regarding literacy at school to be low. Several studies on the role of parents have been conducted by several researchers (Dewi & Masitoh, 2023) which state that in supporting children's literacy, the obstacles for parents in providing literacy activities at home are the lack of time available for parents and the lack of facilities and infrastructure at home. Where nowadays children are also more interested in gadgets than books so that children get bored easily when asked to read books. The following study (Pradita et al., 2024) stated that the results of this study showed that children's literacy skills were relatively low.

The consequences that caused this were the roles and division of tasks between fathers and mothers which were very unbalanced. Where the role of the mother is greater in accompanying the child compared to the father, the lack of parental awareness that the child's learning process is more optimal if there is cooperation between teachers and parents, the low level of parental knowledge which causes the child's knowledge to also be low, and the lack of parental ability to build an educational environment at home. (Fikri et al., 2023) stated that children in Sembalun Lawang Village have no interest in learning and reading. There are several factors that have the potential to correlate with the situation throughout Sembalun Lawang Village, including the community is less aware of the importance of early learning and learning outside of school because children usually prefer to play with gadgets after school. Based on various studies and expert views above, it can be concluded that there are several important roles of parents in supporting children's literacy activities at home, namely by providing an environment rich in literacy. So that parents can provide books and magazines to accustom children to reading and writing activities and by reading books regularly, for example reading story books or other readings and involving children in literacy activities, for example, parents can invite children to write letters, make shopping lists, or by reading together. By carrying out these roles, parents can help children develop strong literacy skills at home.

According to (Wahyuni & Darsinah, 2023) stated that Literacy is the process of absorbing scientific-based information from texts or oral with the aim of helping children read and write better. (Karima & Kurniawati, 2020) stated that early literacy activities in early childhood are not only carried out at school, but can also be carried out by family members at home. (Prasrihamni et al., 2022) said that Interest is a consistent tendency to pay attention and remember an activity during the learning process. This is an activity that is continuously supervised and accompanied by full satisfaction (Prayuda et al., 2024). Based on the theories of several experts above, it can be concluded that Literacy activities begin with the interests and abilities of students in absorbing information, both written and oral, which aims to help children read and write. This comes from early childhood which is not only done at school but can be done by Parents or family at home. What influences literacy activities is the child's interest. This activity must also be accompanied and supervised continuously accompanied by full satisfaction.

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## Methods

This research was conducted using a qualitative method, which is a type of case study research. The data generated from this qualitative method consists of written and oral descriptions of the subjects and observed behavior. A case study is a research method that comprehensively studies a program, event, activity, process, or group of people. Cases are limited by time and activity, and various data collection procedures are used at a predetermined time of April 2024 to collect comprehensive information.

In this study, a snowball sampling type was used, also known as snowball sampling, because of the large number of subjects to be studied, in SD N 102004 Tiga Juhar, as many as 32 students in class 3, where the number of male students was 14 and the number of female students was 18 students. So that it encourages researchers to use the snowball method. Through this type of research, it can examine how students' skills in answering questions are combined through an imaginative game of forming and throwing snowballs in the classroom. And how the role of parents is applied to students at home. So that the researcher can find out the cause of the lack of student literacy at home from several parental roles that are not applied to students. From the students' achievements and interests in learning in class, it can be concluded that the students do not get enough role from their parents in literacy activities at home.

In this study, data was collected through observation, namely by conducting direct observation at the place being studied and listening to what was said by someone being studied. In-depth interviews or interviews, namely by means of questions and answers between researchers and informants in this case, a person's ingenuity is very much needed because the results of the interview depend on their ability to find answers, record and interpret each answer. Documentation is a record of past events. Documentation can be in the form of writing, and images in the research activities carried out. Data language techniques use triangulation techniques. For example, data obtained from observation results are tested by interviews. which include: first Triangulation of data sources, Second Triangulation of documentation. Triangulation of data collection methods and triangulation of time. In this study, data analysis was carried out in three stages. First, data collected from various sources, such as observation and interviews. Second, the data is reduced through the creation of abstracts, which aim to produce a summary of the core, procedures, and relevant statements. Furthermore, it is arranged

in groups. Third, drawing conclusions, namely conveying explanatory descriptions in short and easy-to-understand language.

The first step we took was to visit the school that we would observe, namely SD N 102004 Tiga Juhar, Stm Hulu District, Deli Serdang Regency, on April 20, 2024. Class 3, the first we will interview the homeroom teacher regarding the extent of students' literacy activities in the classroom, the questions we give to the homeroom teacher are: first, how is the development of student literacy in the classroom?, second, what are the efforts of the homeroom teacher in overcoming students' inability to read?, third, what causes students to have minimal literacy?, fourth, what is the biggest challenge in teaching?. Next, we will observe students in the classroom. ask students to express the activities carried out at home after school, after that we observe parents, how the role of parents is in improving students' literacy activities at home, and what are the obstacles so that students have minimal literacy and what is the effect on their learning achievement both in class and at home. And observe how parents act in providing the use of gadgets and digital media that replace students' reading and writing activities.

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**Discussion**

The first step we took was to visit the school that we would observe, namely SD N 102004 Tiga Juhar, Stm Hulu District, Deli Serdang Regency, on April 20, 2024. Class 3, the first we will interview the homeroom teacher regarding the extent of students' literacy activities in the classroom, the questions we give to the homeroom teacher are: first, how is the development of student literacy in the classroom?, second, what are the efforts of the homeroom teacher in overcoming students' inability to read?, third, what causes students to have minimal literacy?, fourth, what is the biggest challenge in teaching?. Next, we will observe students in the classroom. ask students to express the activities carried out at home after school, after that we observe parents, how the role of parents is in improving students' literacy activities at home, and what are the obstacles so that students have minimal literacy and what is the effect on their learning achievement both in class and at home. And observe how parents act in providing the use of gadgets and digital media that replace students' reading and writing activities.

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**Conclusion**

Based on the results of the interview research observations, it can be concluded that the lack of student literacy activities at home is caused by a lack of habituation, availability of reading sources, parental guidance, and awareness of the importance of literacy for child development. It takes extensive efforts from parents and the family environment to increase literacy awareness at home. as parents must have a full role so that students can develop their learning achievements, the things that parents must do are to motivate children in literacy at home.

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# The Role of Teachers in Instrumenting Attitudes if Nationalism in Students in Elementary Schools

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### Abstract

This study aims to analyze the role of teachers in instilling nationalism in students in elementary schools. Nationalism is a fundamental value that must be instilled from an early age in order to form a generation that has a sense of love for the homeland, pride in national culture, and an attitude of unity. The research method used is descriptive qualitative with data collection techniques through observation, interviews, and document analysis. The results of the study indicate that teachers have a strategic role in building students' national awareness through various approaches, such as teaching history and culture, role models in attitudes, and the use of technology in learning. However, there are challenges in instilling nationalism, such as the influence of foreign cultures and stereotypes that are formed early on in the family environment. To overcome these challenges, teachers apply project-based learning methods and interactive discussions to strengthen students' understanding of national values. This study concludes that the effectiveness of instilling nationalism in elementary schools depends on the active role of teachers in creating an inclusive learning environment based on national values.

### Keywords

Literacy; Nationalism; The Role of Basic Education; Learning Methods, National Values.

### Introduction

Nationalism argues that the highest level of consciousness of each person should be expressed in their nation (Suyitno & Suryarini, 2023). Deep feelings for the homeland, local traditions, and local officials have always existed in history, making them feel a sense of belonging and unity, with clear superiority and trust in the country. Nationalist sentiment, often also known as national pride, often also known as national pride or national spirit, is gradually declining in our country due to globalization. Nationalism is a characteristic of love for the homeland, an awareness that drives to form power and agreement to frame the country based on a corrupt identity and acts as a first step and goal to carry out social and monetary exercises (Prayuda, 2020). to organize vigilance to unite and act on the basis of this social solidarity (Nationalism), not as enlivening the consciousness of a country. A sense of Nazism is something that must be needed by a confession, towards students, because the attitude of

nationalism is not and becomes a facility that is diverse in the survival of the nation. Currently, nationalism is one of the most important issues faced. country. society, especially the younger generation. One of the main causes of this problem is the teacher's somewhat excessive emphasis on nationalist attitudes. Through education, they have a strategic mindset. The value of nationalism is very important in the current generation, especially among elementary school students (Kahpi & Harahap, 2020). Currently, the younger generation is more open to foreign cultures. As a result of the entry of foreign cultures into Indonesia, nationalism has gradually declined. The education provided by Elementary Schools is the foundation for developing student character. Therefore, Elementary School students must have a sense of nationalism so that they are not easily influenced by ideologies that conflict with the truth of Pancasila (Kartini & Dewi, 2021). If students believe in the principles contained in Pancasila, then nationalism will be ingrained in their education.

## Problem Formulation

1. How does a teacher incorporate national values into the basic school curriculum?
2. What teaching methods are effective in fostering nationalism in elementary school students?
3. What relevant learning resources can teachers use to help elementary school students recognize national pride?
4. How can educators utilize technology in the classroom to improve students' understanding of nationalism?
5. How can a teacher organize community projects and activities that support the development of students' nationalism?
6. How can a teacher provide positive examples to elementary school students in introducing the idea of nationalism?

## Research Objectives

The objectives of this observational research on teachers to determine the tendency of students' nationalism in elementary schools are:

1. To evaluate the effectiveness of the approaches and learning methods used by teachers in instilling nationalism in elementary school students.
2. To recognize the challenges and obstacles faced by teachers in implementing teaching approaches and methods in order to instill national values.
3. To find out the level of understanding and awareness of participants towards national values after participating in a program or activity guided by an instructor.
4. Analysis of the application of learning approaches and methods on the development of nationalist attitudes that are raised, starting from a sense of love for the homeland, increasing cultural diversity.
5. Examine the role and dynamics of the teacher-student model as an example that can be used to instill national values in students.

## Benefits of Research

1. Improving Educational Effectiveness: Can provide insight into the most effective teaching methods and approaches in instilling national values in elementary school students
2. Expanding Students' Understanding of Nationalism: Will help in identifying effective learning resources that teachers can use to expand students' understanding of nationalism.

3. Building a Strong Attitude of Love for the Homeland and Nationality: With effective and appropriate learning, this research can help students develop a strong attitude of love for the homeland and a strong sense of nationality.
4. Encouraging Unity and Tolerance: This research aims to provide insight into the importance of recognizing the role of tradition and unity in the context of nationalism.

Qualitative theoretical studies on the role of teachers in fostering student nationalism in elementary schools can produce critical analysis of teaching practices, interactions between teachers and students, and the impact of the school environment on the growth of nationalism.

Here are some important points that can be understood in this context:

1. Teaching History and Culture: Teachers can help students understand the importance of national culture and history in developing their national identity. Through storytelling, drama, and practical exercises, teachers can help students develop a more critical perspective on national identity.
2. Empowerment with knowledge: Teachers can help students internalize these positive traits through group discussions, principle-based projects, or experiential learning activities that foster teamwork and friendship.
3. Exemplary behavior: Teachers as role models can play an important role in instilling a sense of nationalism in their students. Positive influences for students will come from teachers who uphold national values, encourage cooperation, and give meaning to national symbols.
4. Learning Environment That Fosters Nationalism: To create a learning environment that upholds national values, teachers can collaborate with other school staff and students.

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## Methods

This type of research is known as descriptive qualitative research, which has the ability to reliably identify relevant words, either in whole or in part, from the interviewed subjects and to secure the available data. Qualitative research is a technique that uses qualitative descriptive data analysis with several case studies from the field (Prayuda et al., 2024). The results above are converted into data, which can then be analyzed and presented in the form of graphs, images, and analysis results. Without data collection techniques, researchers will not be able to obtain data that meets the established data standards. To obtain the required data, the data collection methods used in this study include tests, interviews, and observations. The indicators in this study are the method of implementing nationalism in the classroom, how to implement nationalism in the classroom, and factors that influence and inhibit the implementation of nationalism in the classroom.

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## Discussion

1. What teaching methods do you use to instill a sense of nationalism in students?

The teaching method is project-based with an introduction to children, PBL so for example we introduce cultural diversity, loving Indonesia, like that.

2. How do you as a teacher show an example of a sense of nationalism in front of students?

For example, not discriminating between ethnicities, fellow teachers socialize without regard to race, ethnicity, religion between groups and towards children, for example, praying in turns, even though their religions are different, they are taught to tolerate each other

3. Do you use media or technology in learning nationalism? If so, how?

For example, our learning topic is cultural diversity, later the children will watch a Saman dance film, Saman dance Using a multimedia projector like that so the children, for example, see Dayak dance using media like that

4. What is the biggest challenge you face in instilling a sense of nationalism in students?

The biggest challenge is that they have already conceptualized in their brains from home that for example, different religions mean that one judges this religion as not good, my religion is good, so when we equate them with loving Indonesia by respecting differences, it is a bit of a problem, for example, that one eats pork, that one wears a headscarf like a ghost, so from home there are already concepts like that, for example, and that is the challenge.

5. How do you evaluate the success of instilling nationalistic values in students?

The first way to evaluate it is to observe, observe in class I see how close these children are who are different tribes, who are different religions and respect for example these children listen to national anthems, they listen to national anthems more than tiktok songs, he who during the ceremony responds or not when carrying out the ceremony one of the people calls the attitude of nationalism, he responds or not to the mandate given by the ceremony instructor, he is enthusiastic or not when he carries out daily observations and that is also about for example there is a learning topic about nationalism, does he catch it or not, does he understand or not about learning

Inviting students to discuss the importance of nationalism and reflection on their experiences related to national values. This can deepen understanding and foster a sense of pride and love for the homeland in students. By carrying out these roles, teachers can instill a strong attitude of nationalism in elementary school students, forming a young generation who has a sense of love and responsibility for the nation and state.

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**Conclusion**

Teachers have a very important role in teaching national values to students in elementary schools. Through various teaching methods, such as storytelling, music, and role-playing, teachers can develop students' awareness and understanding of the atmosphere. In addition, teachers also act as guides in displaying national values in everyday life. Effective and consistent guidance from teachers can help students understand and internalize national values so that they can grow into patriotic and kind Indonesian citizens. The teacher's approach in instilling nationalism in elementary school students is very manipulative. Based on research findings, several important points can be identified, including the role of teachers as guides and

student integrity in the subject of "Structural Education". Character research, collaboration with teachers and the community, learning media, roles in the school environment, and education learning methods. Therefore, the teacher's approach in teaching nationalism is very sensitive, nuanced, and significant in teaching nationalism to students in elementary schools. Through various effective strategies and exercises, teachers can develop students' characters who are interested in the sea and have a strong sense of responsibility and commitment, and these students eventually become citizens who sail and are interested in the sea.

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## Analysis of Students' Learning Motivation in PPKN Learning of Grade V Students at SDN 068343

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### Abstract

This study explores the analysis of student learning motivation in Pancasila and Citizenship Education (PPKN) for Grade V students at SDN 068343 Medan. The research employs a qualitative approach through observation, interviews, and document analysis to understand the factors affecting students' motivation in learning Civics. The findings indicate that low motivation among students is influenced by classroom atmosphere, teaching methods, and parental involvement. Teachers can enhance student motivation by implementing varied teaching strategies such as interactive learning, multimedia-based methods, and outdoor learning activities. The study suggests that improving learning conditions and parental engagement significantly contributes to increasing students' interest and enthusiasm in Civics education. These findings provide new insights into educational strategies that foster better learning motivation and engagement among elementary school students.

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### Keywords

Learning Motivation; Pancasila and Citizenship Education; Teaching Strategies; Student Engagement; Elementary School Education

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### Introduction

Education is an effort to help children's souls towards a more humane and better civilization, both physically and mentally from their nature. Especially elementary school education, education in Indonesia has different levels, one example is elementary school education, this education is a level of education that applies the values of Pancasila from each of its principles in elementary school education. Pancasila and Citizenship Education is one of the learning that shapes students' character and aims to shape students in civic knowledge, shape character, ethics, skills, and love for the country. Pancasila and Citizenship Education (PPKN) is a subject that we can apply or practice in our daily activities, both at home and at school. Pancasila and Citizenship Education is a science that includes various materials about citizenship, such as democracy, values contained in the 1945 Constitution, local identity, national history, rights and obligations, and Pancasila values. One way or effort to raise students' learning motivation in Pancasila and National Education learning is to create a

comfortable learning atmosphere and make the classroom atmosphere active. Students who are active in learning will have a sense of enthusiasm for learning when they have difficulties in learning because they feel able to solve the difficulties in learning.

However, based on observation data at SD Gugus 1 Kecamatan Sawan, it can be seen that learning motivation is still low, this condition is observed from the activities of students who are still noisy during class hours. When the teacher is not in class, students prefer to play around in class, students prefer to do other activities and do not take the initiative to study independently, and prefer to play around in class. This causes student grades to be below the Minimum Completion Criteria (KKM). This condition also affects learning outcomes, especially in PPKN learning. In relation to some of the problems above, there are several studies that have been conducted in relation to overcoming problems related to student activities or independence in learning in Grade V Elementary Schools.

One of these studies is a study entitled "The Relationship between Parenting Patterns and Learning Motivation with Student PPKN Learning Outcomes". This study shows the importance of the role of parents in supporting student learning motivation. The obstacles for parents in making time, in teaching children, and different parenting patterns. The next study is entitled "Analysis of the Role of Parents in the Learning Motivation of Class II Students of SDN Panggung Kidul Semarang" (Semarang, 2023). This study shows that it is highly expected for teachers and parents to establish good communication, so that children's learning development can be handled properly. Parents are also expected to pay more attention to their children, as well as provide assistance and guidance in their children's learning, so that their learning motivation continues to develop (Prayuda et al., 2024).

Based on the problems found and several reference studies, this study will be conducted with the aim of finding out more about the analysis of student learning motivation in PPKN learning in class V of elementary school. Therefore, this study will be entitled, "Analysis of Student Learning Motivation in PPKN Learning for Class X Students at SDN 068343". The results of this study are expected to be a new foundation related to activities to generate student learning motivation and can also be a breakthrough in maximizing the role of teachers in creating student learning motivation.

Based on learning motivation in PKN learning, several studies have been carried out:

(Hartini & Tresnaningsih, 2020) said that "learning motivation is a process that provides enthusiasm for learning, direction, and persistence of behavior." This means that motivated behavior is behavior that is energetic, directed, and long-lasting. Motivation can also be defined as the drive that drives someone to move their abilities, energy, and time to achieve certain goals. In addition, motivation is related to feelings and behavior. (Dewi et al., 2020) Says that internal and external factors affect students' learning motivation. The level of student attendance and activity can indicate their level of motivation to learn. External encouragement should be used to increase student motivation. Awards should be given to students who excel, encouraging them to learn more actively and achieve better results. Students who do not receive awards will be eager to compete or in learning to get awards. They will compete to get awards. One of the things that makes students' learning motivation is support from parents. Lack of student learning motivation is one factor of lack of intake from parents (Prayuda, 2023).

The development of a child's personality and intellect will automatically develop positively if the parenting pattern applied to him is successful. Every child's development is a

complicated process and involves interaction between the child and his environment. If the parenting pattern applied to the child is good, then automatically the development of the child's personality and intellect will move in a better direction. Every child's development is a complex process, it cannot be formed only from within the child, but also the environment in which he lives. Motivation is an urge experienced by someone to do an intentional or unintentional act to achieve a certain goal. "The higher the child's motivation to achieve a certain learning goal, of course it will have a positive impact on improving his learning outcomes."

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## Methods

The method that will be used in this study is Qualitative research using methods, steps, and procedures that involve more data and information obtained through respondents, who have the ability to express their own opinions and feelings to gain a broader understanding of the research subject. A qualitative approach allows researchers to explore the complexity, context, and nuances of a problem or phenomenon, often through data collection such as in-depth interviews, observations, participation, or document analysis. Through observation and interviews we can collect the data that we will need in conducting research. This research will be conducted at SDN 068343 which is located at Jalan Pinang Raya 4 No. 1, Perumnas Simalingkar, Medan. And was carried out on Monday, June 20, 2024. This research instrument was carried out by interview and observation to as well as documentary evidence to collect some of the data we need to do. The research subjects in the research we conducted were grade V students at SD N 068343 Medan and the teachers in the school. With a sample size of 23 teachers, there were 22 female teachers and 1 male teacher. The data collection tools that we use are by means of site observation, interviews with grade V students and teachers, the principal of SDN 068343 and, documentary evidence, which collects some of the data we obtain, also to find out their perspectives, experiences, and understanding of student learning motivation in Civics subjects in grade V elementary schools, reviewing classes, and analyzing the learning atmosphere in Civics learning in grade V.

To increase the learning motivation of grade V students in Civics lessons, teachers can create a new classroom atmosphere, or change the learning method to be different, not the same as usual, which only uses lecture methods, and focuses on textbooks/thematics. Teachers can invite students to study outside the classroom occasionally, for example, such as study tours, but in accordance with the material being taught. In addition, teachers can also teach students with multimedia-based learning methods, for example by showing animated video learning related to the Civics material being taught by the teacher. This method can also increase student learning motivation, because using animated videos, this method can be very popular with students because the video uses interesting animations, so they don't get bored easily during learning.

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## Discussion

Based on the research conducted at SDN 068343, the findings indicate that the learning motivation of Grade V students in Civics Education (PPKN) is still relatively low. Observations showed that many students exhibited a lack of interest and engagement in learning activities. During class hours, students were often distracted, engaged in side conversations, or preferred playing rather than focusing on lessons. Interviews with teachers

confirmed that students' enthusiasm for Civics Education was minimal, as they viewed the subject as monotonous and less interactive. The results also revealed that many students did not actively participate in discussions or take the initiative to complete assignments without direct instructions from the teacher. Documentary analysis of student grades further supported these findings, showing that a significant number of students scored below the Minimum Completion Criteria (KKM). This lack of motivation directly impacted their academic performance in Civics Education, highlighting the need for new strategies to enhance their interest and engagement in learning.

The study identified several internal and external factors affecting students' learning motivation in Civics Education. Internal factors include students' personal interest in the subject, their level of confidence, and their perception of the relevance of Civics Education to their daily lives. Some students reported that they found the subject less engaging due to the conventional teaching methods used, such as rote memorization and lecture-based instruction. External factors play a crucial role in shaping students' motivation. One of the most significant external factors is parental involvement. Based on interviews with teachers and students, it was found that students who received support from their parents, such as guidance in completing assignments and discussions about Civics topics at home, tended to show higher motivation in learning. However, many parents lacked the time or awareness to actively participate in their children's education, which contributed to low motivation levels.

Additionally, the classroom environment and teaching methods were found to significantly influence student engagement. Teachers who relied solely on traditional lecture methods struggled to maintain students' attention. In contrast, classrooms that incorporated interactive learning methods, such as group discussions, role-playing, and multimedia presentations, witnessed increased student participation and enthusiasm. To address the issue of low motivation, the study suggests several strategies to create a more engaging and effective learning environment for Civics Education. One recommended approach is incorporating multimedia-based learning. The use of animated videos, interactive digital platforms, and visual aids can help capture students' interest and make abstract Civics concepts more tangible and relatable. Observations indicated that students responded positively to video-based learning, demonstrating higher levels of engagement and comprehension.

Another effective strategy is implementing experiential learning activities, such as field trips and simulations. For instance, taking students on a study tour to local government institutions or cultural heritage sites can provide them with real-world connections to the concepts discussed in Civics Education. Teachers at SDN 068343 who experimented with this approach reported a noticeable improvement in student enthusiasm and participation. Furthermore, fostering a collaborative classroom environment through group discussions and peer learning activities can enhance motivation. When students are given opportunities to express their opinions and engage in meaningful discussions, they are more likely to develop a sense of ownership over their learning. Teachers can also introduce gamification elements, such as quizzes and rewards, to create a competitive yet supportive learning atmosphere.

The role of teachers is fundamental in shaping students' attitudes toward learning. Teachers should adopt a more student-centered approach, recognizing the diverse learning styles and needs of their students. By incorporating interactive teaching methods, providing constructive feedback, and recognizing students' achievements, teachers can foster a more positive learning experience.

Parents also play a vital role in supporting their children's learning motivation. The findings suggest that parents should be encouraged to actively participate in their children's education by monitoring their progress, discussing school-related topics at home, and motivating them to set academic goals. Schools can organize regular parent-teacher meetings and workshops to strengthen collaboration between educators and families.

## Conclusion

Based on the results of the study regarding the analysis of student learning motivation in PPKN learning for grade V elementary school at SDN 068343 conducted by researchers, it shows that student learning motivation is influenced by two factors, namely, the school environment and the family environment. The way teachers overcome school environmental factors is by using effective and interesting learning methods. Family environmental factors can be overcome by guiding and paying attention to children so that they are more motivated in learning. With motivation, students will be more enthusiastic in participating in learning and motivation, we will also try to achieve our goals.

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## The Effect of Problem Based Learning (PBL) Method in Improving Students' Learning Interest in Science Learning in Grade V Elementary School

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### Abstract

This study aims to analyze the effectiveness of the Problem Based Learning method in increasing students' interest in learning Natural Sciences (IPA) in grade V of Elementary School. This method is expected to encourage students to think critically, be active in the learning process, and improve their understanding of concepts in a sustainable manner. This study is based on observations that show that students' test scores in science learning are still below the Minimum Completion Criteria (KKM) and low student learning motivation in class. Therefore, the Problem Based Learning method is applied as a strategy to overcome these obstacles. This study uses observation and test methods to measure the effectiveness of the implementation of Problem Based Learning. Data were collected through observation sheets of teacher and student activities, as well as learning outcome tests. Data analysis was carried out by organizing and interpreting the results of observations and student scores in the test. The results of the study showed that the application of this method increased students' activeness in learning, improved critical thinking skills, and fostered students' interest in understanding science concepts in more depth. Students' positive responses to the Problem Based Learning method indicate that this approach creates a more interactive and enjoyable learning environment. As many as 70% of students showed an increase in engagement and understanding of the material, while 30% still had difficulty adjusting to this method. Therefore, further assistance is needed in implementing this method in order to provide optimal benefits for all students. Thus, the results of this study indicate that the Problem-Based Learning method can be an effective alternative to improve the quality of science learning in Elementary Schools.

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### Keywords

Problem Based Learning; Learning Interest; Natural Science; Elementary School

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### Introduction

Education is a very basic aspect of life for national development. In the implementation of education in schools involving students as learners and teachers as educators, it is realized through the interaction of teaching and learning or the learning process. In the teaching and learning process, the methods and approaches used by teachers are not necessarily compatible with other concepts. Because each method has advantages and disadvantages. This can be revealed through the assessment of student learning progress towards a concept that has been taught by the teacher. Nowadays, many methods and models are proposed that make it possible for the teaching and learning process for students to play a more active role. However, sometimes teachers still often hesitate in the learning process to be applied and the learning objectives are optimally implemented. So that student activities in the interaction of the learning process are no longer rigid or tense. But it is more flexible and flexible.

Problem Based Learning is an innovation in the learning process because students' thinking abilities are truly optimized through the process of teamwork or group work systematically, so that students can empower problems, develop students' thinking continuously and test students' skills. Student learning interest is one of the teacher's responsibilities to pay special attention to it in the learning process. Learning outcomes will not be able to take place well and optimally if a teacher only follows his/her will without paying attention to the learning interests of his/her students (Prayuda, 2023). Because interest is the initial capital to achieve success in every learning process at school. So with the growth of interest in students, there will be motivation in students to follow the learning process seriously from the beginning of learning to the end so that learning is achieved optimally and well.

Natural Science (IPA) learning for grade V of elementary school, based on the curriculum in effect in Indonesia until 2021, has several main topics that must be covered. The following are some topics that are generally taught in grade V science learning. The first is the relationship between humans and the environment, the water cycle and its role in life, natural resources and their utilization, and environmental protection. The first is the relationship between humans and the environment, the water cycle and its role in life, natural resources and their utilization, and environmental protection. However, based on the results of observations of elementary school students, students' exam scores in science learning get an average result below the KKM. Based on direct observation of the class, it can also be concluded that students do not have sufficient learning motivation. This is evidenced by the presence of several students who cannot concentrate and are busy with themselves.

There are also several students who skip class when science learning begins. So, seeing the problems experienced by students at school, the teacher takes one alternative that can be applied in class when teaching students, namely using the problem-based learning method. With this method, the teacher directs students to be able to think critically and be able to formulate problems. Because one of the advantages of this problem-based learning method is that it requires students to be active both in groups and individually in solving problems so that they can form and hone the psychomotor aspects of students at school, cognitive and affective aspects (Prayuda et al., 2024). Thus, the problem of low student interest in learning at school can be solved and resolved optimally for the development of student interest in learning at school. This problem-based learning method can also be interpreted as a series of learning activities that emphasize the process of solving problems faced scientifically. Problem-based learning is learning that involves an open problem that is not structured in the real world as a context, where students can build student knowledge, think critically and are able to develop problem-solving skills (Febriani et al., 2020).

This problem-based learning method is a lesson method where students are involved in solving problems so that students are able to directly experience the process of investigating the concepts they are learning. This problem-based learning is also able to activate student learning with real-life problems every day before students know the formal concept. This problem-based learning uses a meta-analysis method, against the results of previous research. This problem-based learning is one method that can encourage students to deal directly with real problems. Based on this description, it can be concluded that students are more impressed by using the problem-based learning method. The main goal of the researcher is for students to be able to solve problems in real life specifically in the learning process in the classroom so that they can improve and improve the quality of learning (Hermansyah, 2020).

This problem-based learning method can also direct students to be able to collaborate with each other in solving the problem topics they do by presenting problems faced by students in the real world or in their daily lives according to the material they learn at school. And this method is entirely centered on students who are invited to be able to collaborate with their friends. This problem-based learning method is used to convince students with the abilities they have and are able to independently and critically deal with the problems they will solve (Harnita et al., 2023). Students' interest in learning has a very positive effect on science learning outcomes in grade V of elementary school. Interest is the tendency of an individual's heart towards something or an activity that they consider interesting. Interest is the first step that students must have in the learning process, in order to achieve the desired goals. Students' interest in learning can be developed by using a learning model that requires students to be active in learning that is fun and makes students feel comfortable. After students feel comfortable, students' interest in learning will emerge and ultimately lead to maximum learning outcomes. Based on the reality in the world of education today, the learning system that occurs is still conventional in the sense that many educators still use textbooks to explain the material, many teachers are still technologically illiterate (gaptek) so that during the learning process teachers are monotonous in explaining the material to students. What should be is that teachers must be required to be more advanced in using increasingly sophisticated technological media today (Awalia et al., 2021).

Nowadays, many elementary school students experience a decline in learning outcomes. This is due to the lack of interest in learning students due to the lack of interaction with nature and the surrounding environment, especially in science learning. In today's technological era, students are more interested in technological tools than interacting with their surroundings (Safitri & Subhan, 2020). Students in science learning are required to master, have knowledge and insight into science. In order for the objectives of this science learning to take place optimally, it must be supported by conducive learning. Students are faced with real life problems, namely problems with the surrounding environment (Nurman et al., 2020). This learning includes cognitive development, social emotional development, language development and physical development of students (Madaniyah et al., 2021).

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## Methods

Observation is a data collection technique by observing ongoing activities. These activities can relate to the way teachers teach, students learn, and the principal provides direction (Sangging, 2017: 220).

1. Test

Tests are valuable data measurement tools in research. Tests are a set of stimuli given to someone with the intention of getting answers that are used to determine a score. The types of tests in research are achievement tests and intelligence tests.

2. Data Analysis

Data analysis is the process of systematically searching and compiling data obtained from interviews, field notes, and documentation, by organizing data into categories, describing them into units, arranging them into patterns, choosing what is important and what will be studied, and making conclusions so that they are easy to understand by yourself and others. According to (MRizky, 2020: 335) data analysis is carried out to determine the level of success of the research. To analyze data obtained from test results, the following formula can be used.

Learning Implementation

To calculate the results of learning implementation in students, the following formula can be used:

*Nilai Siswa* =  $\frac{\text{skor perolehan}}{\text{skor maksimum}} \times 100$

According to (Sari, 2015: 180) the results of the study on the implementation of student activity learning can be used as the following criteria.

Criteria for assessing the implementation of student activity learning

Nilai	Kriteria
10-29	Very sufficient
30-49	Less
50-69	Enough
70-79	Good
90-100	Very good

Discussion

Related to the use of problem-based learning strategies/methods for students. The results of an interview with a teacher where the teacher uses problem-based learning where there is an approach between students where students will learn to recognize the characteristics of their friends focusing on creative ideas, talents, and can collaborate, and the ability to work in a team. The teacher applies this method by giving group assignments where students must work together to win a lesson given by the teacher, this method not only allows students to win

a game but also improves their collaboration and communication. By using problem-based learning, it can encourage students to participate in groups, play an active role and share ideas between students.

Positive responses from students indicate that the application of problem-based learning has succeeded in creating a fun and interactive learning environment, students feel more motivated and involved in the learning process. With group activities, students can increase their knowledge of the material taught by the teacher, there is mutual assistance between students. Based on the qualitative data provided, the application of problem-based learning through group assignments related to case studies has succeeded in increasing student involvement and satisfaction in the learning process. This shows that problem-based learning is an effective teaching strategy in creating a collaborative and interactive learning environment.

For further application, it is recommended to use various types of case studies to determine student learning interests and student involvement in addition to providing conducive guidance and feedback during discussions and completion of tasks in groups, as well as involving students in reflection and evaluation of the learning process can help identify areas that need to be improved and developed. The results of this study where there were 30 students. there were 70% of students who could accept problem-based learning and there were 30% difficulties in accepting the learning method. the results of this study can be concluded that this method can be accepted by students and can be applied by teachers in schools.

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## Conclusion

Based on the findings of this study, it can be concluded that the Problem-Based Learning (PBL) method is an effective approach to improving students' interest in learning Natural Sciences (IPA) in grade V of elementary school. The implementation of PBL encourages students to actively participate in the learning process, think critically, and engage in problem-solving activities. The results of the study indicate that students who were exposed to the PBL method showed increased enthusiasm and engagement in learning, as evidenced by a 70% improvement in participation and comprehension levels. However, 30% of students still experienced difficulties in adapting to this learning method, highlighting the need for additional support and guidance to maximize its effectiveness. Furthermore, the PBL method has successfully created an interactive and enjoyable learning environment, which contributes to higher student motivation and better conceptual understanding. The collaborative nature of PBL allows students to develop teamwork skills, share knowledge, and enhance their ability to analyze scientific concepts through real-world applications. This approach not only improves cognitive abilities but also fosters the development of social and affective skills essential for holistic learning.

Although the study demonstrates the effectiveness of PBL in increasing student interest and academic performance in science learning, further research is recommended to explore ways to address the challenges faced by students who struggle with this method. Future studies should focus on refining the implementation strategies, providing additional scaffolding for students with lower adaptability, and incorporating diverse case studies to cater to different learning preferences. In conclusion, the findings of this study confirm that Problem-Based Learning is a valuable instructional strategy that can significantly enhance the quality of

science education in elementary schools. Teachers are encouraged to integrate this method into their teaching practices to foster a more engaging, interactive, and student-centered learning experience. However, continuous evaluation and adaptation are necessary to ensure that all students can benefit optimally from this approach.

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## Student Involvement in Extracurricular and its Impact on Achievement in Private Junior High School Santo Petrus Medan

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### Abstract

This research aims to explore student involvement in extracurricular activities and its impact on academic achievement at St. Peter's Private Middle School, Medan. Extracurricular activities such as sports, arts and leadership at this school are designed to support students' holistic development. Using quantitative methods and a correlational descriptive design, a sample of 40 students from grades VII, VIII, and IX was analyzed to see the relationship between involvement in extracurricular activities and their academic achievement. The results showed a significant positive correlation between students' level of involvement in extracurricular activities and their academic grades. Students with high levels of engagement tend to have better academic achievement. In addition, involvement in various types of extracurricular activities has been proven to improve students' time management abilities, social skills, and learning motivation. This research suggests that schools should promote more student involvement in extracurricular activities as an integral part of the curriculum.

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### Keywords

Student Engagement; Extracurricular; Academic Achievemen; Positive Correlation

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### Introduction

Education is not only limited to classroom learning, but also involves out-of-class experiences that play an important role in developing students' character and skills. One important aspect of out-of-class education that has a major impact on student development is extracurricular activities. At SMP Swasta Santo Petrus Medan, there are various extracurricular programs designed to enrich students' learning experiences and develop their talents and interests outside of academics. These programs include sports, arts, leadership, and social activities, all of which are designed to complement the formal curriculum. Previous studies have shown that involvement in extracurricular activities not only helps students develop soft skills such as leadership, cooperation, and discipline, but can also have a positive impact on

academic achievement. Students who are actively involved in extracurricular activities often show improvements in time management, commitment to tasks, and motivation to learn. However, although these positive impacts have been discussed in various educational contexts, research that specifically explores the relationship between extracurricular involvement and student achievement in a private school environment in Medan is still limited.

Thus, this study aims to explore how student involvement in various extracurricular activities at SMP Swasta Santo Petrus Medan affects their academic achievement. This research is important because it provides a deeper understanding of the role of extracurricular activities as one of the factors that influence learning outcomes, especially in schools with unique social and academic characteristics such as SMP Swasta Santo Petrus. Through this research, it is hoped that empirical evidence can be found to support school policies to further promote and support student involvement in extracurricular activities.

A. Student Involvement in Extracurricular Activities

Student involvement in extracurricular activities refers to students’ active participation in various non-academic activities provided by the school. Eccles and Barber (1999) explained that extracurricular activities act as a platform where students can develop their interests, talents, and social skills. In a high school environment, these activities include sports, arts, science clubs, and student organization activities. Based on Bronfenbrenner’s (1979) Socio-Economic Development theory, active involvement in extracurricular activities allows students to interact with different social environments, expand their social circle, and strengthen interpersonal skills that have an impact on psychological well-being. Another theory underlying student involvement is the Intrinsic Motivation Theory (Deci & Ryan, 1985), which states that when students participate in extracurricular activities that match their interests, they feel internally motivated to participate and excel. These activities not only provide space for students to express themselves and be creative, but also provide opportunities to explore their identities outside of formal academic roles.

B. Impact of Extracurricular Activities on Student Development

A number of studies have shown that student involvement in extracurricular activities has a positive impact on various aspects of their development, including academic achievement, social skills, and mental health. Finn's Student Involvement Theory (1989) asserts that active involvement in the school environment, both academically and non-academically, leads to better learning outcomes. This involvement can be seen as part of the identity formation process, where students learn to recognize values, skills, and abilities that contribute to their future success. Specifically, extracurricular activities provide a holistic learning experience, where students are taught to work together in teams, manage time effectively, and demonstrate discipline in achieving their goals. Based on Howard Gardner's Theory of Multiple Intelligences (1983), extracurricular activities allow students to develop various forms of intelligence, such as kinesthetic intelligence through sports, musical intelligence through art activities, and interpersonal intelligence through organizations or leadership.

C. Relationship between Extracurricular Involvement and Academic Achievement

The relationship between involvement in extracurricular activities and academic achievement is the main focus of many studies. A study by Fredricks et al. (2004) showed that students involved in extracurricular activities tend to have better academic achievement compared to those who are not involved. This is supported by the Skill Transfer Theory (Perkins & Salomon, 1992), which states that skills acquired in extracurricular activities, such as time management and teamwork, can be applied in an academic environment. Furthermore, the Student Life Balance Theory by Cooper et al. (1994) explains that involvement in extracurricular activities helps students to manage their time between academic and non-academic demands. This arrangement minimizes stress and provides space for students to develop themselves holistically. In the context of SMP Swasta Santo Petrus Medan, which has various supporting extracurricular programs, it is expected that students involved in these activities will show a better balance between academic and non-academic activities.

D. Extracurricular in the Context of Private Education

Private schools, especially SMP Swasta Santo Petrus Medan, have different characteristics from public schools in terms of management and extracurricular programs. According to the Private Education Ecosystem Theory (Chubb & Moe, 1990), private schools tend to have greater freedom in designing programs that are in line with their educational vision. Student involvement in extracurricular activities in private schools is often oriented to support character building, social responsibility, and leadership spirit, all of which are important elements in a student-centered education system. This theoretical study describes the theoretical basis of the relationship between student involvement in extracurricular activities and their academic achievement. Through this framework, this study will examine how student involvement in various extracurricular activities at SMP Swasta Santo Petrus Medan impacts their academic achievement, considering relevant social, psychological, and contextual factors.

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Methods

This study uses a quantitative approach with a descriptive correlational design to analyze student involvement in extracurricular activities and its impact on academic achievement at SMP Swasta Santo Petrus Medan. This study aims to identify the relationship between the level of student involvement in extracurricular activities and their academic achievement, as well as to explore the factors that influence such involvement.

a. Population and Sample

The population of this study was all students in grades VII, VIII, and IX at SMP Swasta Santo Petrus Medan. Based on school data, the total student population was 373 students. The sample of this study was taken using the stratified random sampling technique, where students were divided into three groups based on their level of involvement in extracurricular activities (high, medium, low), then random sampling was carried out from each stratum. The sample of the study consisted of 40 students, with a proportional division from each stratum to ensure fair representation.

b. Research Instrument

The research instruments used were closed questionnaires and academic grade documents. This questionnaire was developed to measure the level of student involvement in extracurricular activities, taking into account the frequency of participation, type of activity, and student motivation in participating in the activity. This questionnaire consists of 20 questions using a 5-point Likert scale, where respondents provide answers ranging from "very rarely" to "very often". This questionnaire has been tested for validity and reliability through a trial on a small sample (30 students) outside the study population. Students' academic grades will be taken from the recapitulation of learning outcomes provided by the school. This value includes the average grades of the main subjects such as Mathematics, Indonesian, English, and Natural Sciences (IPA), which will be used as indicators of student academic achievement.

c. Data Collection

The data collection process is carried out in two stages:

1. First Stage: Completion of the questionnaire by students. The questionnaire will be distributed to selected samples with guidance from the researcher. In this stage, students will fill out the questionnaire in class directly for 30 minutes, where the researcher will ensure that students understand each question clearly.
2. Second Stage: Collection of academic grade data. The researcher will work with the school administration to collect data on students' average grades from the current semester. This data will be used as a dependent variable in the analysis of the relationship with extracurricular involvement.

d. Data Analysis Technique

The collected data were analyzed using a quantitative statistical approach. To determine the relationship between student involvement in extracurricular activities and academic achievement, Pearson correlation analysis was used. This technique is used to test whether there is a significant linear relationship between the level of student involvement and their academic grades. In addition, to see the differences in academic achievement between students with different levels of involvement, a one-way ANOVA test was conducted. This test aims to identify whether there is a significant difference between the average academic grades of students who have high, medium, and low levels of involvement in extracurricular activities.

e. Statistical Assumption Test

Before further analysis was carried out, a statistical assumption test was carried out to ensure that the data met the required requirements:

1. The normality test was carried out to ensure that the distribution of academic achievement data follows a normal distribution.
2. The homogeneity test of variance was used to ensure that the variance between groups of students with different extracurricular involvement was the same.
3. If these assumptions are not met, a non-parametric statistical approach will be used as an alternative, such as the Kruskal-Wallis test to replace ANOVA.

f. Research Limitations

This study has several limitations, including:

1. Control variables: Other factors that may affect students' academic achievement, such as family support, socio-economic conditions, and learning environment, were not included as control variables in this study. However, this study focuses more on the direct impact of extracurricular involvement.
2. Respondent subjectivity: Students' answers in the questionnaire may be influenced by subjective bias, where they tend to provide answers that are expected or desired by the researcher. Efforts to minimize this bias are made by explaining to students that their answers will be kept confidential and will not affect their academic assessment.

With this method, the study is expected to provide a deeper understanding of how students' involvement in extracurricular activities affects their academic achievement at SMP Swasta Santo Petrus Medan.

Discussion

1. Result

The data obtained from the analysis of student involvement in extracurricular activities and students' academic achievement scores show the following results:

a. Level of Student Involvement in Extracurricular Activities

From the results of the questionnaire filled out by 40 students, it is known that the level of student involvement in extracurricular activities at SMP Swasta Santo Petrus Medan is divided into three categories:

1. High Involvement: 20 students (50%)
2. Medium Involvement: 15 students (37.5%)
3. Low Involvement: 5 students (12.5%)

The most popular extracurricular activities are sports activities (20%), followed by arts activities (15%), and leadership (5%) such as OSIS and Scouts.

b. Relationship between Involvement in Extracurricular Activities and Academic Achievement

The results of the Pearson correlation test show that the correlation coefficient  $r = 0.944$ , with a significance value of  $p < 0.001$ . This indicates a very strong and significant positive relationship between student involvement in extracurricular activities and their academic achievement. In other words, the higher the student involvement in extracurricular activities, the higher their academic achievement is significantly.

c. Additional Findings

From the results of the data analysis, there are interesting findings that students who are involved in more than one type of extracurricular activity (eg sports and arts) tend to have higher academic grades than students who only participate in one type of activity. In addition, students who are involved in leadership activities such as OSIS show improvements in aspects of social skills and time management skills, which indirectly support increased academic achievement.

## 2. Discussion

Based on the results of this study, it is clear that involvement in extracurricular activities has a significant positive impact on students' academic achievement. There are several important points that can be discussed further from these results:

### a. The Effect of Extracurricular Involvement on the Development of Academic Skills

The Skill Transfer Theory (Perkins & Salomon, 1992) supports this finding, where the skills students acquire in extracurricular activities, such as time management, discipline, and teamwork, can be applied in an academic environment. Students who are active in extracurricular activities often have better abilities in managing time between academic and non-academic tasks, which ultimately has an impact on better academic achievement. This finding also supports a study by Fredricks et al. (2004), which states that extracurricular involvement can increase students' commitment to the learning process and increase their motivation to achieve higher academic results. Involvement in activities that are interesting and relevant to their interests can foster intrinsic motivation, which plays a major role in academic achievement.

### b. Extracurricular Involvement as a Balancing Factor for Academic Stress

Students who are involved in extracurricular activities also have the opportunity to channel their energy productively, thus helping them to better manage academic stress. Based on the theory of student life balance (Cooper et al., 1994), extracurricular activities provide students with an outlet to relieve academic stress and gain emotional and social satisfaction from activities they enjoy. This is in line with research findings that show that students with high involvement in extracurricular activities have higher academic grades.

### c. Involvement in Different Types of Extracurricular Activities

The finding that students who are involved in more than one type of extracurricular activity have better academic achievement provides additional insight. This may be due to involvement in various activities that help students develop various aspects of their skills, ranging from physical, mental, to social. For example, involvement in sports can develop discipline and resilience, while involvement in the arts can foster creativity and problem solving. This finding is in line with the theory of multiple intelligences (Gardner, 1983), where extracurricular activities allow students to develop a variety of different intelligences, which ultimately support academic achievement holistically.

### d. Impact of Extracurricular Activities on Character Development

In addition to academic impacts, involvement in extracurricular activities also plays a role in developing students' character, such as responsibility, leadership, and cooperation. Students involved in leadership activities, such as OSIS, show improvements in interpersonal skills and problem-solving abilities. This character development is not only important in the context of academic achievement, but also equips students with skills that will be useful in their lives after completing formal education.

The results of this study have important implications for schools, teachers, and educational policy makers. Student involvement in extracurricular activities should be further promoted as an integral part of overall student development, not just an additional activity. Schools also need to provide a variety of extracurricular activities that cover a variety of student interests and talents, and provide adequate support for students who want to be involved in more than one activity. Furthermore, this study shows that extracurricular activities not only have benefits in character development, but can also contribute directly to improving academic achievement. Therefore, schools can consider making extracurricular activities an important part of the ongoing curriculum. Thus, the results of this study confirm that student involvement in extracurricular activities has a positive impact on their academic achievement, with various additional benefits in developing students' skills and characters at SMP Swasta Santo Petrus Medan.

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## Conclusion

Based on the results of the research that has been conducted regarding student involvement in extracurricular activities and its impact on academic achievement at SMP Swasta Santo Petrus Medan, the following conclusions can be drawn:

1. Level of Student Involvement in Extracurricular

Most students (50%) have high involvement in extracurricular activities, while 37.5% of students are involved at a moderate level, and 12.5% are involved at a low level. The most popular extracurricular activities are sports (20%), followed by arts (15%), and leadership activities (5%).

2. The Role of Extracurricular Activities in Students' Holistic Development

In addition to improving academic achievement, involvement in extracurricular activities also contributes to the development of non-academic skills, such as social skills, leadership, and responsibility. Students who are involved in more than one type of activity, such as sports and leadership, tend to show better achievement compared to students who only participate in one type of activity.

3. Implications for Education

Based on the results of this study, schools are advised to continue to encourage students to be involved in extracurricular activities as an integral part of learning. Extracurricular activities have been proven to play an important role in supporting the overall academic and character

development of students. Therefore, schools should provide a variety of extracurricular activities that are in accordance with students' interests and potential. Thus, student involvement in extracurricular activities not only enriches their experience at school, but also significantly supports improved academic achievement and more holistic personal development.

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# Application of the Problem Based Learning (PBL) Learning Model to Improve Mathematics Learning Outcomes in Rational Numbers in SMP

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## Abstract

This study aims to improve mathematics learning outcomes on rational number material for students in class VII-B of Tri Sakti 1 Catholic Middle School Medan by implementing the Problem Based Learning (PBL) learning model. This research is a collaborative classroom action research carried out in 2 cycles. The subjects of this study were students of class VII-B of Tri Sakti 1 Catholic Middle School Medan in the 2023/2024 academic year. The data collection technique used was the test technique. The results of the study showed that the percentage of student learning completion increased from cycle 1 to cycle 2. In cycle 1, the percentage of learning completion was 41% with an average score of 63.5, while in cycle 2, the percentage increased to 75% with an average score of 80.2. Thus, it can be concluded that the Problem Based Learning (PBL) learning model is effective in improving student learning outcomes in mathematics learning on rational number material. For further research, it can be considered to conduct a more in-depth analysis of the factors that influence the improvement of learning outcomes, such as interaction between teachers and students, and the influence of the learning environment.

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## Keywords

Problem based learning, mathematics, SMP

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## Introduction

Education is a role that can improve the quality of human resources, create prosperity and make the nation's life more intelligent. Through education, individuals and groups can develop their potential in various scientific fields, can enable good and optimal growth, and encourage individuals and groups to become intelligent generations and uphold the dignity of the nation and state. Education is not only limited to the theory taught at school, but can also be obtained through direct experience in the surrounding environment and on the internet. With guidance and training as well as teaching provided in every problem solving, education allows individuals and groups to be able to apply the knowledge they gain both from theory at school and from the everyday environment into their lives. The educational process in

schools is directed through learning activities that are in accordance with educational goals, including learning from various subjects at school such as mathematics.

With increasingly rapid technology, educators are required to play an active role in carrying out the vision and mission of education. Learning carried out by educators should broaden students' insight to play an active role in developing their thinking patterns (Djonmiarjo, 2020). Mathematics as a basic science that is taught at the most basic level of education, is closely related to conceptual knowledge. This chain of mathematical knowledge is able to enable students to gain an understanding of new mathematical concepts.

Learning outcomes are the results that students will achieve when carrying out their duties and obligations in the process of teaching and learning activities at school (Rapiadi, 2022). Learning outcomes are something obtained after carrying out learning activities and are an indicator of students' success in participating in the learning process (Julhadi & Kholik, 2021). Learning outcomes are an important factor that can be obtained by students through the process and experience of learning (E. James, 2020). From several opinions, it can be concluded that learning outcomes are the results achieved by students in the form of mastery of learning material, learning experiences from learning activities in a subject.

Mathematics is one of the scientific disciplines taught to students in the learning process in elementary, middle, high school and vocational school. In applying mathematics in junior high school, a teacher must have a good and correct understanding of the material and how to convey it to students, because it is very important to adapt mathematics learning to the cognitive and emotional development of elementary level students (Yurniawati, 2019). Therefore, teachers need to make efforts and try to create learning concepts that are appropriate and appropriate for the material they want to teach to students. A learning model is a plan or pattern that can even be used to form a curriculum (long-term learning plan), plan learning materials, and guide learning in the classroom or in other learning environments (Rusman, 2018: 144).

Based on the results of pre-cycle observations of class VII-B students at Tri Sakti 1 Medan Catholic Middle School, data was obtained from 32 students. From this data, 27 students have not reached the minimum completion criteria (KKM) set by the school, namely 75, and 5 students have succeeded in reaching and exceeding the KKM. This indicates that there are challenges in achieving the desired student learning outcomes and will provide important information for planning and implementing further learning. Therefore, real efforts are needed to improve the learning process by choosing the appropriate learning model to overcome these problems. One learning model that is appropriate and can support learning in every subject, especially mathematics in the rational number subject, is the Problem Based Learning (PBL) learning model.

According to (Toharudin, 2011:99), the definition of the Problem Based Learning (PBL) learning model is a learning model that has the characteristics of problems in the real world as a basis for improving creative thinking and problem solving. The Problem Based Learning (PBL) learning model presents real problems from everyday life, with the aim of stimulating the stimulus response of students to explore every aspect of the problem and collaborate with group friends and other groups in finding solutions to existing and real problems (Maolani, 2017). Through this approach, students are trained to develop 4C competencies that are essential for generation to generation through collaborative communication, critical thinking and creative thinking in overcoming various problems and

challenges that will be faced (Isrokatun & Rosmala, 2018). This kind of learning encourages students to learn independently or in groups to develop their potential for independence in solving problems, not just relying on direct instructions from the teacher.

The Problem Based Learning (PBL) learning model is structured in five stages which include, stage 1: orienting students towards the problem, stage 2: organizing students to learn, stage 3: guiding individual and group investigations, stage 4: developing and presenting the results of the work, and stage 5: analyze and evaluate the problem solving process.

Apart from these stages, the Problem Based Learning (PBL) learning model also involves operational syntax. According to Huda (Isrokatun & Rosmala), this includes, among other things, 1) presenting a problem, 2) discussing the problem, 3) solving the problem outside of teacher guidance, 4) sharing information, 5) presenting solutions and 6) reflecting. Thus, the Problem Based Learning (PBL) learning model can provide a structured and comprehensive framework to guide a collaborative and student-centered learning process, and enable students to be actively involved in problem solving and solution development.

The stages of the Problem Based Learning (PBL) learning model which are carried out systematically and structured will have the potential to develop students' abilities to solve problems and simultaneously enable students to master knowledge in accordance with certain basic competencies (Fathurrohman, 2015). In implementing the Problem Based Learning (PBL) learning model, there are two things that need to be considered, namely class management and student readiness. Because in learning using the PBL model, students are encouraged to be actively involved, teachers must be able to master and manage the class well and effectively to facilitate the learning process to run well and smoothly (Isrokatun & Rosmala, 2018).

The Problem Based Learning (PBL) learning model is structured into five stages, starting from orienting students towards the problem to analyzing and evaluating the problem solving process. These stages include organizing students to learn, guiding investigations both individually and in groups, and being able to develop and present the results of their work. Apart from that, there is an operational syntax that involves problem presentation, discussion, problem solving, various information, solution presentation, and reflection. This structured framework will facilitate collaborative and student-centered learning, enabling students to be active and creative in problem solving and developing solutions that are relevant to everyday life.

By implementing the Problem Based Learning (PBL) learning model, students not only gain a theoretical understanding of mathematical concepts, but students are also involved in practical experience in solving problems that are relevant to everyday life. Through this process, students can develop problem-solving skills, collaborate with others, and communicate the solutions they find. Apart from that, with the reflection stage, students can evaluate their own learning process, identify strengths and weaknesses, and plan steps for their improvement in the future. Thus, the Problem Based Learning (PBL) learning model not only facilitates students' understanding of mathematical concepts, but can also prepare students with relevant and important skills to equip them for success in the future.

Thus, the aim of this research is to evaluate the effectiveness of implementing the Problem Based Learning (PBL) learning model to improve mathematics learning outcomes in rational number material for class VII-B students at Tri Sakti 1 Medan Catholic Middle

School. This research was conducted to determine the extent to which the application of the Problem Based Learning (PBL) learning model can improve students' abilities in solving problems in everyday life related to mathematics and to assess its impact on achieving the Minimum Completeness Criteria (KKM) set by the school. By identifying the level of success of students in achieving the KKM before and after implementing the PBL model, the results of this research will also be able to provide relevant information for improving learning in the future as well as deepening and strengthening understanding of the effectiveness of implementing the Problem Based Learning (PBL) learning model. in the context of mathematics learning at secondary school level.

### Methods

This research is Collaborative Classroom Action Research (PTTK), where collaboration occurs between researchers and practitioners in the field of education. The methods used include quantitative and qualitative approaches. Quantitative data was obtained from test results to measure progress in learning rational numbers, while qualitative data was obtained through observation sheets. Data analysis was carried out by calculating the average value and percentage increase for each cycle.

The design used is the Kemmis and Mc design. Taggart, which involves a spiral cycle of planning, implementation, observation and reflection, followed by the next spiral cycle. The research instrument consists of tests to measure problem-solving abilities and observation formats to assess teacher performance and student activities. The indicator of the success of this research is the increase in student learning outcomes each cycle, with a target of at least 65% individual absorption and 65% classical completeness (Arikunto, 2018)

This research was conducted at Tri Sakti 1 Medan Catholic Middle School in class VII-B with research subjects totaling 32 students, consisting of 18 male students and 14 female students. Thus, this research is designed to provide an in-depth understanding of the effectiveness of the Problem Based Learning (PBL) learning model in improving mathematics learning outcomes at the secondary school level.

### Discussion

This Classroom Action Research (PTK) involved 32 students from class VII-B of Tri Sakti 1 Catholic Middle School Medan as research subjects. The focus of this research is evaluating students' mathematics learning outcomes by applying the problem-based learning (PBL) model. Comparative data on student learning outcomes from cycle I to cycle II are presented in the completeness score table attached below.

The completeness score table provides a clear picture of the effectiveness of the Problem Based Learning (PBL) learning model in improving students' mathematics learning outcomes over time. By paying attention to the comparison between cycle I and cycle II, this research will provide valuable insight into students' progress during a structured learning process using a problem-based approach (PBL)

**Table 1.** Comparison of the Completeness of Student Learning Outcomes

No	Category	Value Interval	Pracycle		Cycle I		Cycle II	
			Frequency	%	Frequency	%	Frequency	%
1	Incomplete	0-74	27	84%	19	59%	8	25%
2	Complete	75-100	5	16%	13	41%	24	75%
Amount		-	32	100%	32	100%	32	100%
The Highest Score		-	80	-	95	-	100	-
Lowest Value		-	0	-	0	-	20	-
Avarage		-	41,6	42%	63,5	64%	80,2	80%

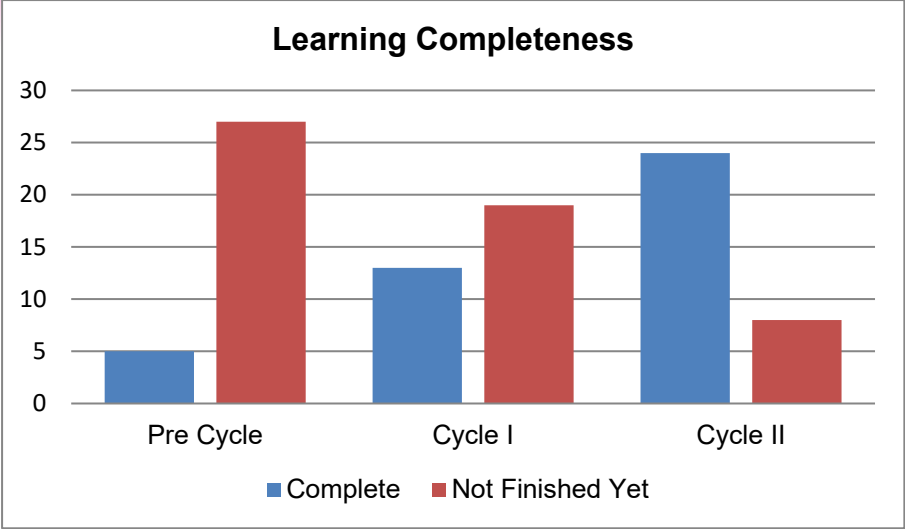
From this table, it can be concluded that there has been an increase in student learning outcomes from the pre-cycle stage to cycle I and cycle II. At the pre-cycle stage, only 5 students (16%) succeeded in achieving the specified Minimum Completeness Criteria (KKN), while 27 other students (84%) had not achieved this target. The score ranges from 0 to 80, with an average student learning outcome of 42.6 (42%), which is still below the success target of 65%.

In implementing the actions in cycle I, there was an increase in the number of students who reached the KKM, with 13 people (41%) who were successful and 19 students (59%) who still had not reached the target. The average student score in cycle I was 63.5 with variations in scores between 0 and 95. Thus, the average student learning outcomes in cycle I reached 64%, which is in the poor category. The table above provides a clear picture of the student process from the initial stage of learning to the first stage of corrective action, highlighting a significant increase in the achievement of their learning outcomes throughout the learning process using the Problem Based Learning (PBL) learning model.

In the implementation of cycle II actions, it can be seen that there was a significant increase in the number of students who achieved the Minimum Completeness Criteria (KKM) with 24 people (75%) who were successful and 8 students (25%) who still had not reached the KKM target set at 75. The average student score reached 80.2 (80%) with a variation in scores between 20 and 100. There was an increase in the average student learning outcomes by 16% from the previous cycle, namely cycle I 64% and in cycle II it reached 80% and was in the very good category.

Thus, the application of the Problem Based Learning (PBL) learning model has proven successful in improving student learning outcomes in mathematics learning, especially in rational number material. These results reflect the achievement of the success targets set by the researcher. A graph comparing the completeness of students' learning outcomes in mathematics learning will provide a clearer visualization of students' progress during the learning process which can be presented in the graph below:

**Graph 1.** Student Learning Completeness



The graph depicts the level of students' learning completeness from the pre-cycle stage to cycle II, showing significant changes each time an action is taken. At the pre-cycle stage, only 5 students from the entire class VII-B totaling 32 people managed to reach the level of completeness in learning mathematics, especially in rational number material. However, in cycle I, the number of students who reached the level of completeness increased to 13, and in cycle II, this number increased to 24. Thus, the graph reflects the success of implementing the Problem Based Learning (PBL) learning model in increasing students' learning completeness. , especially in understanding rational number material. The graphic visualization above provides a clear picture of students' progress from one learning stage to the next, also strengthening the conclusion that the PBL model is effective in achieving learning objectives in rational number material.

Conclusion

Based on data analysis and discussion, it can be concluded that there has been an increase in student learning outcomes by implementing the Problem Based Learning (PBL) learning model in cycle I and cycle II. In cycle I, the average percentage of students who succeeded in achieving the completion level was only 64%, which is still in the quite good category. However, in cycle II, there was a significant increase where the average percentage of students who achieved the level of completion increased to 80% and moved to the very good category. These results have met the target percentage set at 65%, indicating that the Problem Based Learning (PBL) learning model has proven to be very effective in improving student learning outcomes in rational number material.

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**The Role of Teachers in Improving the Learning  
Independence of Students at State Elementary School  
067243**

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**Abstract**

This study examines the role of teachers in enhancing students' learning independence at State Elementary School 067243. Teachers play a crucial role in shaping students' learning motivation, discipline, and personal development. The research employs a qualitative approach through observations, interviews, and documentation. The findings highlight that teachers act as facilitators, instructors, learning resources, and mentors in guiding students toward independent learning. Effective strategies include a student-centered approach, collaboration with parents, and the integration of technology to support interactive and engaging learning. The study also reveals that a close teacher-student relationship significantly influences students' willingness to take responsibility for their own learning. Additionally, personalized guidance based on students' individual challenges, such as family background and emotional needs, is essential in fostering their independence. The results suggest that teachers' multifaceted roles contribute significantly to improving students' self-directed learning and overall academic development. Further research is recommended to explore the long-term impact of these teaching strategies on students' independence and academic success.

**Keywords**

Teachers' Role; Learning Independence; Elementary Education; Student Motivation; Educational Strategies

**Introduction**

Teachers have an important role in the world of education because teachers hold the key to education and learning. Teachers are the parties most in contact with students in the implementation of daily education, teachers are the parties who play the greatest role in determining students' success in achieving educational goals. Education is the process of changing the attitudes and behavior of a person or group of people in an effort to mature humans through teaching and research efforts, the importance of education in efforts to eradicate ignorance and reduce poverty along with increasing human intelligence (Prayuda, 2023).

Education that supports the learning process requires accurate classes and class organization, elementary school education has an important role in determining the development of children and having readiness to enter further education. Development in children takes place continuously so that all aspects influence each other because the results of the previous stage which are a requirement for the development of many parents and teachers have understood the importance of the golden age of development in children. Lack of understanding of children about learning can be caused by many things, one of which is the lack of children's learning ability. Especially in elementary school children. The role of teachers in elementary schools is still very much needed because children in elementary schools are still unable to understand what they see and what they hear, so during the Covid-19 Pandemic which has had an impact from 2020 until now, many education institutions have generally experienced disruptions in the learning process. So that the role of teachers is very influential in supporting students in carrying out learning. Teachers as educators must play a role in shaping children's attitudes, personalities, and mentalities, so that the role of a teacher is not only to provide learning materials to students but teachers can apply habituation steps such as habituation, enforcement, discipline and guidance for students to form their disciplined attitudes in the learning process. (Indah Winarsieh)

Elementary school children are in the range of 7-13 years and are experiencing a unique growth and development process. Elementary school children will experience rapid growth and development from the age of 7 to the age of 13. Children have certain characteristics that are not the same as adults, a child's curiosity is very enthusiastic, dynamic and always active in what is seen, heard and felt, they will explore and learn in their daily lives, one of the tasks of child development to achieve this stage is to grow independence or often called standing on one's own two feet is a person's ability not to depend on others and be responsible for what is done. Independence is a child's ability to control and regulate their own thoughts, feelings, and actions freely and try to overcome feelings of shame and doubt in a student's life. Elementary school children are the right time to do education because at this time children are experiencing an extraordinary growth and development process because children do not have many negative influences from outside or from their surroundings so that parents and teachers will find it easier to direct and guide their children, especially in instilling an independent character in children. Damayanti (2021)

Children's learning independence is an important factor that can be applied to face-to-face learning and online learning because children's learning independence is related to independent learning, which does not mean that students learn alone, but students may ask and discuss with parents, teachers or other people in improving the learning process in order to achieve abilities and improve learning (Prayuda et al., 2024). A student's independence can be seen from the habits they do, such as planning learning activities. Learning independence is a conclusion from individuals who are willing and able to learn on their own initiative without help from other parties in terms of determining learning goals, learning methods and evaluating learning outcomes. Aritionang, E. (2022)

There are factors that influence the level of children's independence, namely:

1. Emotional factors. That can be shown by the ability to control emotions and not being disturbed by the emotional needs of parents.

- 2. While intellectual factors are considered with the child's ability to overcome various problems that can be faced.
- 3. Meanwhile, external factors are factors that come from outside the child himself. These factors include the environment, characteristics, social, stimulation, loving and affectionate parenting patterns, the quality of information for children and parents, parental education and the employment status of parents.

Based on several studies that have been described, there are gaps in several aspects of the problem. The studies above have discussed how the role of teachers in improving student independence. However, these studies have not discussed efforts that can be made related to improving student learning independence which is directly influenced by the role of teachers as mentors. This study aims to answer the existing gaps. This study will be conducted with the title THE ROLE OF TEACHERS IN IMPROVING STUDENT LEARNING INDEPENDENCE IN ELEMENTARY SCHOOL SD NEGRIG 067243. By conducting this study, it will be clearer how the role of teachers in teaching and guiding students can directly influence student learning motivation, therefore the role of teachers as mentors for students is very important in efforts to improve student learning motivation, the role of teachers must be able to apply effective strategies to encourage students to be more enthusiastic in learning.

Methods

The research method used is a qualitative research method because it is a method that uses descriptive data in the form of writing or oral from people and actors whose impacts are observed, the form of research that we do is a form of qualitative research interview research which is a discussion that has a purpose and is preceded by several informal questions. Research interviews are more than just conversations ranging from informal to formal although all conversations have certain transition rules or control by one or other participants because research tends to direct interviews to the discovery of feelings, perceptions, and thoughts of participants. In this study there are forms of observation, interviews and documentation, the sample of the interview research on one teacher of class VI of SD NEGRI 067243 which has a total of 20 students, 8 male students and 12 female students. The location of this study is located on Jl. Bunga Sedap Malam XI. Medan Selayang District. The data collection techniques used are observation, interviews and documentation, the sample in this study amounted to 3 teachers based on the results of observation interviews and documents in this study are there are several roles of teachers as faciliators, the role of teachers as educators, the role of teachers as mentors, the role of teachers as students and the role of teachers as motivators, the role of teachers as substitute parents in the school environment.

Discussion

Based on the results of research conducted at SD NEGRI 067243 The issue of the role of teachers in supporting learning activities in grade VI by conducting interviews, observations and documentation, the study will present a general description of the role of teachers in supporting activities in the learning process in elementary schools

- a. Teachers as Facilitators

Teachers as facilitators are the role of teachers as someone who facilitates or facilitates the student learning process. In this role, teachers not only act as conveyors of information, but also as someone who helps students understand and apply the knowledge and skills they learn. Teachers must be able to create an environment that supports active and collaborative learning. They encourage students to think critically, solve problems, and take initiative in the learning process. Teachers also play a role in designing and structuring relevant and interesting learning experiences in this role, teachers function as supporters and directors of teachers helping students identify their learning goals, develop effective learning strategies, and evaluate their progress. teachers can also use various methods, tools, and resources to facilitate learning, such as group discussions, collaborative projects, educational technology, and so on. Aini M. (2022).

b. Teachers as Instructors

Teachers are tasked with fostering the development of knowledge that is influenced by many different factors ranging from motivation, student-teacher relationships, the degree of freedom of students, verbal abilities of students, communication skills of students with teachers and feelings of security in students. If these factors are met, teaching and learning activities can be carried out successfully. Teachers must also be able to make students understand everything and even be able to solve various problems,

c. Teachers as Learning Resources

The role of teachers as learning resources will be closely related to the teacher's ability to master the existing subject matter. So that when students ask something, the teacher can quickly and responsively answer students' questions using language that is easier for students to understand.

d. Teachers as Guides

Teachers can be said to be travel guides, which are based on their knowledge and experience and have a sense of responsibility in helping students who experience learning difficulties, personal, social, developing student potential through creative activities in various fields of science, arts, culture and sports. From the results of our interview observations, one of the teachers who teaches in class VI of State Elementary School 067243. According to Mrs. Panjaitan, the role of teachers in improving student learning independence in elementary schools. A teacher must be able to play alternate roles, it could be that the teacher can play the role of a teacher, it is an obligation, the teacher must also be able to play the role of a friend, and play the role of a parent.

Talking about the role, all roles must be carried out by the teacher in addition to the approach to students, the openness of students to the teacher must also be done because in class VI of elementary school, the approach must be carried out maximally because children who are 12 years old are subject to what is called adolescence, so the class VI teacher must be used as an approach as a friend or even a friend to confide in, so we as teachers must guard students so that they do not go in the wrong direction, don't let students be afraid to speak and open up to the teacher because the teacher elevates their ego.

A teacher must also be able to plan how to encourage students to be able to learn independently or individually. According to Mrs. Panjaitan, the strategy that needs to be done by a teacher is an approach strategy, for example, a face-to-face approach because students and

teachers continue to collaborate with parents, which will definitely be implemented at school. An approach like a triangle, namely teachers with students, then students with parents and parents with students, so the approach between the three is brought closer, then all strategies will run well. In addition, a teacher must also be able to provide and think about forms of guidance on how students can be independent in the learning process. According to Mrs. Panjaitan, the guidance that must be given to students must be in accordance with the problems being experienced by the students, according to what is needed, for example, in grade VI of elementary school, the guidance needed in grade VI named Budi requires the guidance of a mother's love because Budi's family is a broken home family. So, the guidance that must be given by the teacher is guidance as a parent and guidance as a teacher. So that students named Budi do not go astray because Budi is in a free family because the father of the student's child is rarely at home, as is Budi's mother. So, the form of guidance that Budi currently needs is the guidance of parental affection, so the form of guidance from the teacher to the student depends on the form of the problem that the child is experiencing. As a teacher, you must be able to help or understand all students who are experiencing difficulties when carrying out individual learning, teachers must also be able to cooperate with parents in guiding the growth and development of students because when students are in the school environment, teachers replace parents, and vice versa if students are outside school or at home, the students' parents themselves help students in guiding students to be better. So, between parents of students and teachers must often collaborate on the development of the child, especially at this time is an era of developing technology, the term technology in the past and the era of sophisticated technology is now different, so teachers find it easier to communicate with parents through WhatsApp, Instagram, TikTok and other media tools.

In addition, teachers must also be able to teach students to follow current developments, they must be able to use technological tools (aids) to support student learning independence so that the teaching and learning process is not boring or monotonous. Teachers must also be able to determine when the subject requires the use of technological tools. For example, teachers bring science subjects in theme book 9 with subject matter elements on the planet from there the teacher asks for cooperation from parents of students to be allowed to bring social media cellphones so that they can study together in the classroom, by asking students to open Google, Chrome or other appropriate sites regarding the lesson on the sequence of the solar system, which is still under the supervision of the teacher and then together see and understand the elements contained in the planet. For example, more students do not bring mobile phones than those who do, the teacher must use an infocus method, all students are busy studying the sequences of the solar system, but coincidentally the infocus available at SD Negeri 067243 is limited and divided into 6 classes while there are only 2 infocuses because talking about the teaching method, the current model teachers must use a lot of social media, so teachers must prepare or use an infocus tool to facilitate the teaching process to students.

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## Conclusion

Thus, we can conclude that teachers have an important role in the world of education because teachers hold the key in education and learning that the role of teachers in improving student learning independence in elementary school SD Negri 067243. Teachers must be able to act as Facilitators, As Teachers, as learning resources, as mentors, All roles must be carried out by teachers in addition to the approach to students, student openness to teachers must also be done so that teachers can plan how strategies to encourage students to be able to learn

independently or individually. teachers must also be able to cooperate with parents in guiding student growth and development.

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## Application of Project-Based Learning Method in Improving Students' Critical Thinking and Collaboration Skills at SMA Swasta Budi Murni 2 Medan

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### Abstract

This study aims to analyze the implementation of the Project-Based Learning (PjBL) method in enhancing students' critical thinking and collaboration skills at SMA Swasta Budi Murni 2 Medan. A qualitative descriptive approach was used through classroom observations, semi-structured interviews with teachers and students, and analysis of student projects. The results show that PjBL has a positive impact on students' critical thinking and collaboration skills. Approximately 80% of students experienced an improvement in their critical thinking abilities in analyzing problems and evaluating information during the project work. Furthermore, 85% of students showed significant development in collaboration skills, particularly in teamwork, communication, and coordination among group members. However, challenges such as time management and access to resources remain obstacles in the implementation of PjBL, with 40% of students reporting difficulties in independently managing project time. This study concludes that PjBL is effective in enhancing critical thinking and collaboration skills, with additional support in time management and resource accessibility needed to optimize the method's implementation.

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### Keywords

Project-Based Learning (PjBL); Critical Thinking; Collaboration

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### Introduction

Project-Based Learning (PjBL) is a student-centered learning method, where they are actively involved in exploring and solving real problems in a project. PjBL differs from traditional approaches because it emphasizes student involvement in an in-depth learning process through challenging projects. In the context of 21st-century education, PjBL is considered one of the most effective strategies for developing critical thinking, collaboration, creativity, and communication skills, which are greatly needed by students in the modern era.

Budi Murni 2 Private High School Medan has implemented PjBL as part of an effort to improve the quality of learning and prepare students to face future challenges. As a school committed to improving the quality of education, Budi Murni 2 Medan continues to seek innovation in the learning process, and PjBL was chosen as one of the methods to support this. Berk (2010) highlighted that the implementation of PjBL requires support from all stakeholders, including teachers, students, and parents. This shared commitment is important to achieve success in the implementation of PjBL. PjBL is believed to be able to help students master learning concepts better, while honing their social and academic skills. Edelson (2001) argues that PjBL can facilitate collaborative learning, where students learn from each other and develop important social skills. This creates a positive and inclusive learning environment.

However, the implementation of PjBL in secondary schools still faces various challenges, such as teacher readiness, availability of resources, and student adaptation to a more independent and collaborative approach. Krajcik and Blumenfeld (2006) stated that PjBL must be well designed to ensure students can develop deep understanding and critical thinking skills. Unstructured projects can lead to confusion and frustration. Strobel and van Barneveld (2009) noted that although PjBL has many benefits, challenges in its implementation are often related to teacher readiness and availability of resources. Therefore, this study aims to analyze the implementation of the PjBL method at SMA Swasta Budi Murni 2 Medan, see its impact on student engagement and learning outcomes, and provide recommendations for further development.

This research is important to provide an overview of how PjBL can be integrated effectively into the secondary school curriculum, as well as how this method can provide long-term benefits for students in their learning process. Hattie (2009) in his research showed that project-based learning can have a significant impact on student learning outcomes, as long as it is supported by effective feedback and proper assessment.

Objective

1. Analyze the implementation of the Project-Based Learning (PjBL) method at SMA Swasta Budi Murni 2 Medan, especially in the learning process in the classroom.
2. Identify the impact of PjBL on students' critical thinking skills, including the ability to analyze problems, evaluate information, and make the right decisions during project work.
3. Assess the effectiveness of PjBL in improving students' collaboration skills, such as teamwork, communication, and coordination between group members during the project process.

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Methods

Merriam (2009) stated that classroom observation provides rich insights into the dynamics of learning and interactions in natural situations. With this method, researchers can understand how the learning process takes place in the real world, including the strategies used by teachers. Creswell (2014) explained that semi-structured interviews are an effective tool for exploring participant perspectives in depth. Through interviews, researchers can explore individual understandings and experiences, as well as obtain rich data on teacher and student perceptions of PjBL implementation. Yin (2018) emphasized the importance of data triangulation in qualitative research, where observations, interviews, and project analysis can

be combined to provide a comprehensive view. This approach was chosen because it is in accordance with the objectives of the study which wanted to explore in detail the process and impact of implementing Project-Based Learning (PjBL) on students' critical thinking and collaboration skills.

### Research Stages

1. Classroom Observation: The study began with direct observation in the classroom using PjBL to understand the dynamics of learning, interactions between students and teachers, and the implementation of the project which is the core of this method. This observation was conducted in a naturalistic manner, following the recommendations of Merriam (2009) who emphasized the importance of observation in a natural context to obtain a real picture of the learning process.
2. Semi-Structured Interviews: Data were collected through semi-structured interviews with teachers and students. This interview aims to explore their experiences and perceptions regarding the implementation of PjBL. Yin (2018) emphasized the importance of interviews in qualitative research to obtain rich and in-depth data on the research subject.
3. Student Project Analysis: Projects produced by students were analyzed to measure the extent to which PjBL contributed to the improvement of critical thinking and collaboration skills. This analysis uses a rubric compiled based on indicators of critical thinking and collaboration skills. Project results are assessed based on quality, depth of analysis, and collaboration that occurs during the project.

### Analysis Method

Data obtained from observations, interviews, and student project analysis were analyzed using thematic analysis methods. According to Braun and Clarke (2006), thematic analysis is the process of identifying, analyzing, and reporting patterns (themes) in data. This process involves several stages, namely:

1. Familiarization with Data: Researchers read interview transcripts and observation notes repeatedly to understand the content of the data.
2. Coding: Giving codes to data segments that are relevant to the research objectives.
3. Determining Themes: Grouping similar codes to identify major themes that emerge from the data.
4. Reviewing Themes: Re-examining the themes that have been identified to ensure relevance and interconnectedness between themes.
5. Writing Reports: Compiling a report based on the results of the thematic analysis that provides in-depth insights into the impact of PjBL on students' critical thinking and collaboration skills.

### Discussion

Based on the results of observations, interviews with teachers and students, and analysis of student projects at SMA Swasta Budi Murni 2 Medan, this study found several important findings related to the implementation of Project-Based Learning (PjBL) and its impact on students' critical thinking skills and collaboration.

1. Implementation of Project-Based Learning (PjBL) Method in Class

The results of the observation showed that the implementation of PjBL in class went well, although there were several challenges related to time and resource management. Teachers actively facilitated the learning process by providing relevant and challenging project assignments. Approximately 75% of the learning time in class was spent on project activities, where students worked independently or in groups. The teacher acted as a facilitator, helping students when they had difficulty understanding concepts or solving project problems. However, 25% of the learning time was still used for direct teaching methods (lectures) to strengthen students' understanding of basic concepts before starting the project.

2. Impact of PjBL on Students' Critical Thinking Skills

The results showed that PjBL had a positive impact on improving students' critical thinking skills. Approximately 80% of students were able to show improvements in their ability to analyze problems given during the project, evaluate the information obtained, and make the right decisions in completing project tasks. Students who were more active in the discussion and exploration process during the project showed better abilities in identifying creative solutions and critically reflecting on their own work. Meanwhile, 20% of students still needed additional guidance in critical thinking, especially in terms of evaluating the information they obtained during the project.

3. Effectiveness of PjBL in Improving Students' Collaboration Skills

Collaboration is one of the aspects that has developed the most during the implementation of PjBL. Based on the results of interviews and project observations, approximately 85% of students showed significant improvements in teamwork, communication, and coordination skills between group members. Students worked together in dividing tasks, discussing, and solving problems they faced during the project. In addition, 70% of students reported that they felt more comfortable working in groups after the implementation of PjBL, indicating an improvement in their ability to collaborate. However, 15% of students faced difficulties in coordinating with group members, especially related to differences in levels of contribution or understanding of the task.

4. Challenges in Implementing PjBL

Although the positive impacts are clearly visible, there are several challenges identified during the implementation of PjBL. Teachers reported that 40% of students had difficulty managing their time independently during the project, mainly due to lack of experience in project management. In addition, some students also had difficulty accessing the resources needed to complete their projects optimally. Teachers also need to make further adjustments in providing guidance so that all students can participate effectively in the PjBL process.

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**Conclusion**

From the results of the study on the implementation of Project-Based Learning (PjBL) at SMA Swasta Budi Murni 2 Medan, it can be concluded that PjBL has succeeded in significantly improving students' critical thinking and collaboration skills. Most students (80%) showed better abilities in analyzing problems, evaluating information, and making decisions during the project, although 20% of them still needed further guidance. In terms of

collaboration, 85% of students succeeded in developing better teamwork, communication, and coordination skills, although 15% of students faced challenges in working together effectively with their groups. Although PjBL is effective in improving students' skills, some challenges remain, especially in terms of time management and access to needed resources, where 40% of students reported difficulty in managing their time independently. Therefore, additional support from teachers is needed in providing further guidance so that all students can participate effectively in the project, as well as increasing the accessibility of resources needed to support the success of PjBL. By optimizing the implementation of PjBL, schools can continue to encourage the development of better critical thinking and collaboration skills among students.

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# The Influence of Using Project Based Learning Model on Students' Learning Motivation in Science Subjects for Grade V Elementary School

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**Abstract**

This study aims to analyze the effect of the use of the Project Based Learning (PjBL) learning model on students' learning motivation in Natural Sciences (IPA) subjects in grade V of elementary schools located on Jalan Mapilindo Gang Bintara No. 5, Medan. The PjBL model was chosen because of its innovative approach in increasing student involvement through projects that require creativity, problem solving, and collaboration. In this study, a qualitative approach was used with observation and interview methods to collect data from students and documentation that supports the research findings. The results of the study showed that the implementation of the PjBL model contributed significantly to increasing students' learning motivation. Students were more enthusiastic in participating in learning, more active in discussions, and more enthusiastic in completing the project tasks given. This model also helps students develop critical and systematic thinking skills in understanding science concepts. However, challenges in the implementation of PjBL are still found, such as limited resources and teacher readiness in managing project-based learning. The conclusion of this study confirms that PjBL is an effective learning model in increasing elementary school students' learning motivation, especially in science subjects. Therefore, it is expected that the results of this study can be a reference for educators and policy makers in designing more innovative and interesting learning strategies for students. Thus, the use of PjBL in science learning at the elementary school level can continue to be developed to improve the overall quality of education.

**Keywords**

Project Based Learning; Learning Motivation; Natural Sciences; Elementary School

**Introduction**

This project-based learning design (PBL) has shown relevance and effectiveness in increasing student involvement in the teaching and learning process, especially in elementary school science lessons. Previous research shows that PBL is effective in increasing a child's inspiration and interest in science learning in a more interactive and real-world relevant way.

PBL supports students in developing children's critical thinking, participation, and solving problems in teaching and learning and then linking them to a child's real world.

Based on previous research, both studies concluded that student motivation in learning has a significant influence on science learning achievement in elementary schools. The first study showed that student motivation in learning has an influence of 48.1% on science learning achievement. Student motivation in learning is an inner drive or reason that drives and directs learning behavior, and can be improved through various indicators such as duration of activities, frequency of activities, perseverance, and level of aspiration. Student learning achievement can be seen from the value of the science subject formative test (Hamdu and Agustina 2011).

Meanwhile, the second study using meta-analysis found that the project-based learning model can also significantly improve students' learning outcomes and motivation in science subjects. This model allows students to learn constructively with a research-based approach, increase their creativity, and increase their responsibility, as well as improve their critical thinking skills (Fahrezi et al. 2020).

Therefore, in this context, the PJBL Learning Model can be considered a relevant solution to overcome the problem of low student motivation in learning in elementary schools. PJBL provides project-oriented learning, where students can develop children's motivation in learning individually by using project-centered learning and it can be concluded that the use of project-based learning design and student motivation in learning play an important role in increasing student values in science subjects in elementary schools. These two components can serve as references for more innovative and efficient learning approaches that will improve student learning outcomes.

The quality of human resources and development depend on education. Education in the 21st century focuses on improving students' intelligence by teaching them how to solve problems around them. Developing the teaching and learning process is one of the main strategies to improve the quality of education because it implies the relationship between teachers and students. In this situation, the involvement of an educator is very important in implementing meaningful learning designs, character-oriented, and focused on developing 21st century skills. One of the skills that a teacher must have is the ability to develop meaningful learning designs.

Project-Based Learning/PJBL is an innovative learning design that emphasizes situational learning through complex work that produces real products. In PJBL, students are involved in projects that require creativity, problem solving, and collaboration. By combining science subject matter with this PJBL model, students can obtain a deeper and more relevant learning study with the real world. Therefore, this study aims to find out how studying PJBL learning designs can affect students' interest in science learning in elementary schools. From the results of this study, we hope that it can help educators and policy makers create a learning approach that is superior and more interesting for students.

Learning motivation is what drives behavior towards learning goals. Because motivation is a complex issue that depends not only on what you want to do, but also on the accuracy and behavior of the individual. Learning motivation is the desire of an individual to achieve certain goals (Margareth 2017) (Emda 2018), Children who are motivated to learn are children who are characterized as more active in conducting experiments and asking about

things they want to know during experiments (Andriani and Rasto 2019), Learning motivation is the whole action of both emotional or personal states of individuals in students that arise in the form of a learning activity, have responsibility for the sustainability of KBM and provide direction to KBM in order to achieve a goal (Nganjuk and Wahyuni 2023).

So, in this new learning motivation, the overall psychological suggestion in students not only starts, but also supports and guides their learning efforts. This suggestion allows students to be actively involved in student KBM. Thus, learning motivation becomes an essential catalyst in the educational process, ensuring that students remain focused and enthusiastic in pursuing their academic goals.

The Project Based Learning (PjBL) model is an active learning that links technology with everyday life through project activities and creating works. The PjBL model involves students independently to improve critical thinking and thinking power (S. Ida Kholida 2020). An educator has a role as a facilitator and evaluator for the results of products that have been produced by students. Project learning provides an opportunity for students to design assignments and obtain information that can later be implemented in everyday life. Project learning helps students gain a lot of experience, knowledge, skills and attitudes. Student motivation in teaching and learning can be increased through project-based learning (Handayani 2020), (Riza, Kartono, and Susilaningsiha 2020).

From the Definition of PjBL put forward by several experts above, it is concluded that PjBL is an active learning activity carried out with project activities that can make students produce a work. PjBL provides access or opportunities for students to design their own assignments and seek information to be implemented in projects and everyday life. PjBL makes students think more critically and improves their problem-solving skills in project activities.

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### Methods

The research was conducted at Jalan Mapilindo Gang Bintara NO. 5. Medan Timur District, Medan City, North Sumatra. This research is included in research that uses a qualitative approach. This study takes data in the form of, primary data, namely data taken directly from the research subjects, namely 5th grade elementary school children through interviews and direct observation. Secondary data, namely data taken by researchers through documentation during the research. The data sources produced in this study were 5th grade elementary school children at Jalan Mapilindo Gang Bintara NO. 5. Medan Timur District, Medan City, North Sumatra. Several experts have put forward the definition of Qualitative Research, (Murdiyanto 2020) defines qualitative research as a procedure for investigating social phenomena and human problems. Qualitative research is also defined as a strategy for finding meaning, understanding, concepts, characteristics, symptoms, symbols or descriptions of phenomena, with a focus on using several methods, this method is natural and holistic, prioritizing quality and presented narratively (Dr. Umar Sidiq, M.Ag Dr. Moh. Miftachul Choiri 2019), (Hafsiah Yakin 2023). So, it can be concluded that qualitative research is a method or technique that is narrative in nature and is presented descriptively in scientific research to explain or describe the meaning of certain phenomena, situations, or symptoms being studied.

In this case, the researcher conducted direct observations at the school and also conducted interviews with parents of students. Observations were carried out by observing field conditions directly, namely when students were learning face-to-face. Interviews were conducted to collect data and find problems in the research process. Several criteria for student learning motivation are by categorizing each variable, sub-variable and indicator. The subjects of this study were children who were on Jalan Mapilindo Gang Bintara No. 5.

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## Discussion

The results of the study from field observations showed that there was an increase in children's learning motivation when the study was conducted using the learning model. In this study, the learning model applied was the Project Based Learning model which is expected to increase students' learning motivation in science learning. The advantages of this model are that students can gain more critical thinking, and conduct analysis that accustoms children to think systematically in solving a problem. The results of the researcher's interview research involved 5 children as samples to be given questions related to the Project Based Learning learning model presented by the researcher in increasing the children's learning motivation. The researcher presented 7 lists of questions to be asked to students. In conveying these questions, the researcher did not forget to ask the child's name and class.

From the first sample, researchers can conclude that learning with the Project-based learning method is more fun, because with this method children can work together with their friends. Children consider learning more interesting and more effective than learning individually or with conventional methods such as just writing. Children feel more comfortable and motivated when learning with their friends. Children say they can better understand learning materials through projects, this method is considered not boring and increases their curiosity to find out more about the topics being studied. However, there are also challenges in project-based learning, such as difficulty in determining themes and attaching pictures, students still consider it a positive experience. They have a desire to use learning with this method in the future, indicating that the benefits felt outweigh the difficulties faced. This indicates that project-based learning can be an effective alternative to increase student involvement in the learning process.

From the second sample, researchers can conclude that children consider this method more interesting, not boring, and provides a different learning experience from conventional methods that only focus on books. Children feel that previous learning experiences may be monotonous or less interesting. Project-based learning methods offer more flexible variations and interactions, so that students feel more interested and motivated in learning. In addition, other factors are also important, where children have the opportunity to collaborate with their friends. Although children admit that project-based learning can be challenging, they still consider it a preferred method compared to conventional methods that only use books. Children's desire to return to using project-based learning methods in the future shows that the experience of learning using this project method has shaped their learning options.

From the third sample, researchers can conclude that this study has a positive view of project-based learning. Students consider this method more fun and effective, especially because it provides direct learning experiences and better understanding. Students also emphasize the benefits of learning with friends, which increases interest in the learning process.

Although students consider project-based learning more fun and easier to understand, students also admit that teacher explanations are also important in learning. This shows that students still need the role of a teacher as a facilitator in learning. Students' desire to return to using project-based learning methods in the future shows that direct learning experiences with this project method have given them choices about their own learning methods.

In the first sample, it was found that Project based learning received a positive view of the learning process. Project based learning attracts children's interest, this is evidenced by the behavior of students who are more active in the learning process. They feel that project-based learning is an interesting and not boring method by giving them a direct learning experience which is certainly different from conventional learning methods. This was also found in the next sample. This sample explains that project-based learning is one of the effective and enjoyable learning methods because they can better understand learning by providing direct learning experiences.

While in other samples, it was found that social factors also greatly influence their learning process, this allows them to interact and learn more with their peers so that they can increase their learning motivation. In contrast to some of the samples above, other samples actually consider project-based learning to be a bit troublesome, but this is a challenge for them. They think that learning by working together with friends will be easier. Thus, it can be concluded that with creative learning and involving students directly, Project based learning can be an effective learning model in increasing student learning motivation.

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## Conclusion

Based on the results of the study, a positive influence was obtained in the use of Project based learning on students' learning motivation. This was proven during direct interview observations. This shows that project-based learning has an important influence on students' learning motivation in science subjects in elementary school. The influence of project-based learning can be seen from the results of interviews conducted with students. Project based learning affects students' learning motivation, supported by factors in this project-based learning, namely that students are more active in learning and working together with their friends. The inhibiting factor is that some students feel that project-based learning is a little difficult. Based on the results of the study, it can be concluded that the project-based learning model has a positive effect on increasing students' learning motivation.

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## Development of Wordwall-Based Indonesian Language Learning Media to Increase Student Learning Motivation

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### Abstract

Indonesian language learning often faces challenges in increasing students' learning motivation, especially when the methods used are less interesting and tend to be monotonous. This study aims to develop Wordwall-based learning media in Indonesian language learning and measure its effectiveness in increasing students' learning motivation. This study uses a Research and Development (R&D) approach with the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model. The subjects of the study were junior high school (SMP) students selected using purposive sampling techniques. Data collection was carried out through observation, learning motivation questionnaires, and interviews, which were then analyzed using descriptive statistical techniques and content analysis. The results of the study showed that the use of Wordwall significantly increased students' learning motivation. Data from the questionnaire showed an increase in student motivation scores after the use of Wordwall-based learning media. In addition, the results of observations showed that students became more active, enthusiastic, and involved in the learning process. Interviews with students and teachers also revealed that Wordwall helped make learning more fun and interactive, thereby increasing students' understanding of Indonesian language material. The conclusion of this study is that Wordwall-based learning media is effective in increasing students' learning motivation. The main advantage of this media is its interactive features that can increase student engagement in learning. However, challenges in implementation include limited access to technology and the need for initial adaptation for students who are not familiar with this platform. Therefore, it is recommended for teachers to provide initial guidance in using Wordwall and combine it with other learning methods for more optimal results.

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### Keywords

Wordwall; Learning Media; Learning Motivation; Interactive Learning; Educational Technology

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### Introduction

Education is one of the main factors in improving the quality of human resources (Prayuda et al., 2022). In today's digital era, technological developments have brought significant changes to the world of education, especially in terms of learning methods and

media. Technology-based learning not only helps improve the effectiveness of learning, but can also increase student motivation in understanding the material being taught. One of the main challenges in learning Indonesian is the low interest and motivation of students to learn. Conventional learning methods that are monotonous often make students less active in participating in the learning process, resulting in low understanding of the material.

To overcome this problem, innovation is needed in learning that can make students more interested and motivated in learning. One solution that can be applied is the use of technology-based learning media, such as Wordwall. Wordwall is a digital platform that provides various types of educational games, such as interactive quizzes, word matching, crosswords, and various other activities that can be used in the learning process. This media allows students to learn in a more fun and less boring way, thereby increasing their involvement in learning.

A number of studies have shown that the use of Wordwall in learning can improve student motivation and learning outcomes. For example, research conducted by (Ilma & Susilawati, 2024) found that the use of Wordwall in learning Indonesian vocabulary can significantly increase student engagement. Likewise, research conducted by (Pulungan et al., 2024) showed that Wordwall-based games can help students improve their recount text writing skills. With this empirical evidence, the use of Wordwall as a medium for learning Indonesian has great potential to be applied in the learning process in schools.

Based on these problems, this study aims to develop Wordwall-based learning media in learning Indonesian to increase students' learning motivation. In addition, this study will also examine the effectiveness of Wordwall-based learning media in improving students' understanding of the material being taught and analyzing students' responses to its use in learning. It is hoped that this study can contribute to creating more innovative learning methods that are in accordance with the needs of students in today's digital era. In this study, the literature review will discuss the main concepts underlying the development of Wordwall-based learning media and their relationship to student learning motivation. Some of the concepts that will be discussed include learning motivation theory, technology-based learning, and the effectiveness of Wordwall in improving learning outcomes.

## 1. Learning Motivation

Learning motivation is one of the key factors that influences students' success in understanding and absorbing learning materials. According to the learning motivation theory put forward by (Kustati et al., 2024), learning motivation can be divided into two types, namely intrinsic motivation and extrinsic motivation. Intrinsic motivation comes from within the student, such as the desire to understand the material or the pleasure of learning. Meanwhile, extrinsic motivation is influenced by external factors, such as awards, encouragement from teachers, or the use of interesting learning media.

Research conducted (Hidayati & Afifah, 2022) shows that interactive and technology-based learning can increase students' intrinsic motivation, because it provides a more interesting and less boring learning experience. Therefore, the use of technology in education is an effective strategy to increase student involvement and motivation in learning.

2. Technology-Based Learning

The development of technology has brought about major changes in the world of education. The use of technology-based learning media, such as Learning Management System (LMS), interactive learning applications, and game-based learning, is increasingly being applied in various educational institutions. Technology-based learning allows students to learn independently, flexibly, and increase interaction in the learning process. According to research conducted by Mayer (2009) in the Cognitive Theory of Multimedia Learning, learning that combines visual, audio, and interactive elements is more effective in improving student understanding compared to conventional learning that only relies on text and lectures. Technology can help students learn in a more exploratory and active way, thereby increasing absorption of the material being taught.

3. Wordwall as Interactive Learning Media

Wordwall is a digital-based learning platform that provides various types of educational games that can be used in various subjects, including Indonesian (Ardila et al., 2023). By using Wordwall, teachers can design more interesting and interactive learning activities, thus making students more motivated to learn. Several previous studies have proven that the use of Wordwall in learning can improve student learning outcomes and motivation. The use of Wordwall in learning Indonesian vocabulary can increase student participation in the learning process. In addition, research by Kinasih, Khair, and Azis (2024) showed that the use of Wordwall in character education learning can improve students' understanding of the material and increase interaction in the classroom. With this empirical evidence, the use of Wordwall in learning Indonesian has great potential to be applied in educational contexts. Therefore, this study will develop and test the effectiveness of Wordwall-based learning media in increasing student learning motivation.

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**Methods**

This study uses a Research and Development (R&D) approach with the ADDIE (Analysis, Design, Development, Implementation, Evaluation) development model to produce effective Wordwall-based learning media in increasing student learning motivation (Arfani et al., 2024). The ADDIE model was chosen because it allows the development of learning media systematically and is oriented towards user needs. The first stage in this model is analysis, which aims to identify problems in learning Indonesian, especially in terms of student learning motivation. Data in this stage is obtained through interviews with teachers, classroom observations, and distributing initial questionnaires to students to determine their level of motivation before the intervention is carried out. Furthermore, the design stage is carried out by designing a Wordwall-based learning media concept that is in accordance with Indonesian language material and student needs. At this stage, the most effective features in Wordwall are selected to increase student engagement, such as interactive quizzes, crosswords, and word matching. After the design is complete, the development stage is carried out by creating and testing the learning media that has been designed. This media will be tested on a small scale to see if there are aspects that need to be improved before being applied on a wider scale. After the development is complete, the implementation stage is carried out by applying Wordwall-based learning media in the Indonesian language learning process in the classroom that is the

subject of the research. At this stage, students will use the media in teaching and learning activities, and the teacher will observe the students' responses and involvement in learning.

Finally, the evaluation stage is carried out to assess the effectiveness of the media developed in increasing students' learning motivation. Evaluation is carried out in two forms, namely formative evaluation which is carried out during the development process to ensure that the media is in accordance with the needs, and summative evaluation which is carried out after implementation to assess the impact of the media on students' learning motivation (Nasution et al., 2024). The subjects in this study were junior high school (SMP) students who took Indonesian language learning, with samples selected using purposive sampling techniques. This technique is used so that the research sample includes students with various levels of learning motivation, so that the research results are more representative. The research instruments used in data collection include observation, questionnaires, and interviews. Observations were carried out to observe the learning process and the level of student involvement when using Wordwall media, while the learning motivation questionnaire was used to measure changes in student motivation before and after using Wordwall-based learning media. This questionnaire is compiled based on a Likert scale with several indicators of learning motivation, such as interest in the material, level of participation in learning, and feelings of pleasure when learning using digital media. In addition, interviews with students and teachers were conducted to dig deeper into the advantages and disadvantages of using Wordwall in Indonesian language learning.

Data obtained from the questionnaire will be analyzed using descriptive statistical techniques to see changes in students' learning motivation scores before and after the intervention. Meanwhile, qualitative data from observations and interviews will be analyzed using content analysis techniques to understand the experiences and responses of students and teachers to the use of Wordwall-based learning media. With this research method, it is hoped that a comprehensive picture can be obtained regarding the effectiveness of Wordwall media in increasing students' learning motivation in Indonesian language learning.

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**Discussion**

This study aims to develop Wordwall-based learning media in Indonesian language learning and measure its effectiveness in increasing students' learning motivation. Based on the implementation results, it was found that the use of Wordwall-based media had a positive impact on students' involvement and motivation in the learning process. The results of measuring students' learning motivation using a Likert scale questionnaire showed an increase in the average motivation score from before to after using Wordwall. Before using the media, the average student motivation score was in the moderate category, with indicators such as interest in Indonesian language lessons which tended to be low and student participation in class discussions which was still passive. After implementation, there was a significant increase in aspects of student active involvement, enthusiasm in answering questions, and understanding of the material. Several students who previously participated less in learning showed an increase in participation after using Wordwall.

In addition to quantitative data from the questionnaire, observations conducted during the learning process also supported these findings. Teachers reported that students were more active in answering questions and showed greater interest in learning Indonesian language material when using Wordwall. This was supported by interviews conducted after learning,

where most students expressed that they enjoyed learning using Wordwall more than conventional lecture or practice methods. They feel more challenged and motivated to complete the educational games provided on the platform. In terms of effectiveness, the use of Wordwall also makes it easier for teachers to deliver material because the interactive features available can help teachers explain concepts in a more interesting way. In addition, this media allows teachers to provide direct feedback to students, so they can find out their mistakes and immediately correct them.

Based on the results of the study, it can be concluded that the use of Wordwall in Indonesian language learning can increase students' learning motivation. This is in line with previous studies showing that game-based learning can increase student engagement and make them more enthusiastic about learning (Utami & Wedananta, 2024; Maharani, Arianto, & Diningrat, 2024). The increase in learning motivation found in this study can be explained through the theory of learning motivation by Deci and Ryan (1985), where a fun and interactive learning environment can increase students' intrinsic motivation.

The main advantage of Wordwall in Indonesian language learning is its ability to present material in a more interesting and less boring way. Through various educational games such as interactive quizzes and crosswords, students can learn actively and independently, so they feel they have more control over their learning process. In addition, the competition feature in Wordwall is also a factor that encourages students to be more motivated, because they feel challenged to get the best score. However, although Wordwall has proven effective in increasing student motivation, there are several challenges found in this study. One of them is limited access to technology, especially for students who do not have adequate devices or a stable internet connection. In addition, some students still have difficulty operating this platform at the beginning of use, so guidance from teachers is needed in the early stages of implementation. Therefore, in its implementation, it is important for schools to ensure that supporting facilities are available and teachers have sufficient understanding in using Wordwall as a learning medium.

Overall, this study shows that the development and use of Wordwall-based learning media has a positive impact on student learning motivation in learning Indonesian. Therefore, the implementation of this media can be an alternative for teachers in creating more innovative and enjoyable learning. For further research, it is recommended to develop this media further by adding other features that can increase student engagement, such as interactive simulations or digital-based collaborative projects.

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## Conclusion

Based on the results of the research that has been conducted, it can be concluded that the development of Wordwall-based learning media in Indonesian language learning has proven to be effective in increasing students' learning motivation. This increase can be seen from the results of the learning motivation questionnaire analysis which showed a significant increase in motivation scores after using Wordwall. In addition, observations during learning also showed that students became more active, enthusiastic, and participated more in discussions and completed assignments with more enthusiasm compared to conventional learning methods. The main advantage of Wordwall-based learning media is its ability to present material interactively and fun, so that it can attract students' interest in learning.

Features such as interactive quizzes, crosswords, and various other forms of educational games provide a more dynamic and non-boring learning experience. In addition, the presence of competition elements in Wordwall has also proven to be a driving factor in students' motivation to be more active in the learning process.

However, although this study shows positive results, there are several challenges that need to be considered in the implementation of Wordwall-based learning media. One of them is limited access to technology, especially for students who do not have adequate devices or stable internet access. In addition, some students need time to adapt to the use of this platform, so guidance from teachers is needed so that its use can be more optimal. Overall, this study confirms that the use of Wordwall as an innovative learning media can be an effective alternative in increasing student motivation and engagement in learning Indonesian. Therefore, the application of technology in education, especially through interactive learning media such as Wordwall, needs to be continuously developed in order to provide a more effective and enjoyable learning experience for students.

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