Increasing Students' Learning Concentration Through The PBL Learning Model

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ABSTRACT

Student learning concentration is an important factor in the learning process that can influence learning outcomes. However, it is often found that students have difficulty maintaining concentration during the learning process. This research aims to describe how the application of the Problem Based Learning (PBL) learning model can increase the learning concentration of fifth grade elementary school students. The background to this research is based on the importance of concentration in the learning process which can influence student learning outcomes. However, many students experience difficulty in maintaining concentration during learning. This research uses the Classroom Action Research (PTK) method which is carried out in two cycles, each consisting of planning, action, observation and reflection stages. The research subjects were fifth grade students in elementary schools, with research instruments including interview sheets, observations and documentation. Then analyzed using the Milles & Huberman technique. The results showed a significant increase in students' learning concentration. In the initial pre-cycle conditions, only 2 students (12.5%) met the four learning concentration indicators. After being given action using the Problem Based Learning (PBL) learning model in cycle I, the number of students' learning concentration increased to 8 students (50%). Then in cycle II, after reflecting on the actions in cycle I, there was a further increase to 14 students (87.5%). Implementing PBL not only increases concentration but also students' motivation and involvement in the learning process. Students become more active, motivated and focused when working on group assignments that are based on real problems.

KEYWORDS

learning concentration; problem based learning (PBL)

1. INTRODUCTION

Education is the primary foundation for shaping students' character and abilities to face future challenges. Through education, students not only gain knowledge but also develop important skills and values for their future lives. Education is inseparable from the concept of teaching. Effective learning greatly depends on the teaching methods used; engaging and interactive learning can enhance students' involvement and motivation, enabling them to maintain their focus during lessons (Asmani, 2016). In the learning process, the role of the teacher is central, as teachers play a crucial part in creating a conducive and engaging learning environment for students. One of the factors affecting students' learning outcomes is their concentration, which presents a challenge for teachers in the educational process.

Concentration in learning is essential because it is a key factor that influences the effectiveness of students' learning in elementary school. According to Amalia, Hilyana, Keguruan, and Kudus (2022), concentration in learning refers to the ability to focus one's mind on a subject while ignoring unrelated distractions. It is an individual's capacity to direct attention over an extended period to complete tasks without being disturbed by external or internal stimuli. Characteristics of students with good concentration include: (1) paying attention to the material presented by the teacher; (2) being able to respond to and understand the material given; (3) actively asking questions and providing arguments about the material; (4) answering the teacher's questions correctly; and (5) maintaining a calm and quiet classroom environment during lessons (Khotimah, Sunaryati, & Suhartini, 2021). Good concentration allows students to understand lessons more effectively, complete tasks with better focus, and develop critical thinking skills necessary for academic success. However, in practice, many students struggle to maintain concentration during classroom instruction due to various factors, including unengaging teaching methods, an unsuitable learning environment, and students' psychological and physical conditions. According to Andriana, Rokmanah, & Aprilia (2023), there are nine indicators of concentration: (1) showing attention or reception towards the lesson; (2) responding to the material being taught; (3) following instructions with appropriate physical movements; (4) applying the knowledge gained; (5) analyzing the knowledge acquired; (6) expressing ideas or opinions; (7) being ready to use the acquired knowledge when needed; (8) having interest in the subject matter; and (9) not feeling bored during the learning process. In this study, to measure students' learning concentration, the researcher uses four indicators: (1) Showing attention or reception towards the lesson; (2) Being able to answer and ask questions related to the taught material; (3) Not engaging in unrelated activities during the learning process; (4) Responding to the material being taught.

Based on initial observations in a fifth-grade elementary school classroom, several main issues related to low student concentration were identified. During lessons, many students appeared unfocused and easily distracted, frequently talking to friends, playing with stationery, or daydreaming. Active participation was minimal, with only a few students asking or answering questions from the teacher, while most remained passive. The predominant teaching method used was lecturing, where the teacher was the center of the teaching-learning activity, resulting in less interactive and engaging lessons. The learning environment was also less conducive, with external noise and classroom seating arrangements that did not support student interaction. Additionally, initial questionnaire results showed that students' motivation to learn was low, with many feeling bored with the current teaching methods and lacking motivation to study. These findings indicate the need for changes to improve students' learning concentration.

To address these issues, an approach that actively engages students and stimulates their interest in learning is required, such as implementing the Problem-Based Learning (PBL) model. The Problem-Based Learning (PBL) model has emerged as a potential solution for improving students' learning concentration. This model, based on constructivist principles, facilitates students' direct involvement and helps them solve problems encountered during the learning process (Arends in Ernawati, 2023). PBL is a student-centered learning model where students are given the opportunity to solve real-life and relevant problems (Asyhari & Hidayat, 2023). The PBL model involves five steps: (1) Problem Orientation; (2) Organizing Students; (3) Guiding Inquiry; (4) Developing and Presenting Work Reports; and (5) Analyzing and Evaluating the Problem-Solving Process. Through this model, students are expected to be more engaged in learning activities, develop critical thinking skills, and enhance their motivation and interest in learning. PBL emphasizes not only the final outcome of problem-solving but also the learning process itself, providing students with a more meaningful and in-depth learning experience.

Based on this background and initial observations, the researcher aims to improve low student learning concentration by applying the Problem-Based Learning (PBL) model. This study intends to describe how the application of the PBL model can enhance students' learning concentration in a fifth-grade elementary school classroom. It is hoped that this research will contribute to the field of education, particularly in the development of effective teaching strategies to improve the quality of student learning in elementary schools.

2. METHODOLOGY

This research was researched using the classroom action research (PTK) model. PTK is research conducted in the classroom by educators or researchers to determine the impact of actions taken in relation to a learning topic discussed in the class (Lickona, 1991). The aim of this research is to describe how the application of the PBL learning model can increase student learning concentration. in class V of elementary school. The subjects of this research were all 16 class V students. This classroom action research was carried out in two cycles, each cycle having 2 meetings to see the consistency of each cycle. This research model uses Kemmis & Mc research techniques. Taggart which consists of four stages of research flow which consists of planning, action, observation until the final stage, namely reflection (Putri, Purba, Cahyani, & Abdulah, 2022). The type of data used in this research is qualitative data using the Milles and Huberman techniques. The stages of qualitative data analysis in this research begin with data reduction, continue with data presentation which can be in the form of diagrams, tables, graphs, pie charts, etc., and end with drawing conclusions (Murdaningrum, Purwati, & Safitri, 2023). This research is said to be successful if more than 12 or 75% of students have fulfilled these four indicators at the second meeting.

3. RESULTS AND DISCUSSION

Pre-Cycle

The initial pre-cycle conditions of student learning concentration were obtained through observations and interviews during teaching and learning activities before implementing the action. Based on the results of Pre-cycle observations carried out by researchers in the 5th grade mathematics subject Chapter II "Unit Measurement and Quantity", researchers made initial observations using four indicators of student concentration, including (1) Demonstrating acceptance or attention to the subject matter; (2) Able to answer and ask

questions related to the material being taught; (3) Do not carry out other activities that are not related to learning; (4) Responding to the material taught. It was found that of the 16 students, there were only 2 students who met all the indicators. After analyzing using the four indicators, there were 10 students who met the first indicator, 5 students who met the second indicator, 2 students who met the third indicator, and only 5 students who met the fourth indicator.

From the results of pre-cycle analysis through initial observations, it was concluded that the level of learning concentration in class V students was still relatively low, far below the research success criteria, namely 75% of students were able to fulfill all indicators of student learning concentration.

Based on the results of interviews with teachers, several factors causing low student learning concentration in class were identified. Teachers say that monotonous and less interactive teaching methods often make students bored and find it difficult to maintain concentration. Apart from that, a noisy learning environment, distractions from other friends and poorly organized classes also interfere with students' focus. Low learning motivation and uncontrolled use of technology, such as cell phones, become additional distractions. Students' psychological and physical conditions, such as fatigue or lack of sleep, also affect their concentration. Study loads that are too heavy also make students overwhelmed, making it difficult to stay focused. The teacher also said that the impact of students' lack of concentration in learning greatly affected their learning outcomes, they found it difficult to understand the material presented, so they were unable to complete the assignments given by the teacher.

Cycle 1

In the first cycle, the first stage is planning, this planning is carried out to implement the Problem Based Learning (PBL) learning model with the aim of increasing student concentration in class V. This planning stage includes, Developing learning scenarios, preparing learning plans for cycle 1 for 1 week with 2 meetings, the learning plan is prepared based on Problem Based Learning (PBL) syntax, then prepares materials and teaching materials, organizes the class, prepares evaluation instruments, prepares cameras/smartphones for documentation and schedule for implementation of cycle 1. The second stage is action with the following steps. Problem Based Learning (PBL) model steps in Chapter III material "multiplication of decimal numbers", the teacher provides an introduction to the material, students are introduced to real problems that are relevant to the material of multiplication of decimal numbers, group formation, students are divided into several small groups consisting of 4- 5 students, each group discusses to understand the problem, looks for relevant information, the teacher monitors and provides guidance to the group, students discuss and share information with each other, the teacher facilitates with guiding questions, helps students stay focused, the last is presentation and evaluation. Then the third stage of classroom action research is observation of actions and data collection and processing. As for the observation results from cycle 1, meeting 1, the total number of students who met all the indicators was 4 students or 25%, with the explanation that there were 12 students who met the first indicator, "Showing acceptance or attention to the lesson material"; 6 students in the second indicator "Able to answer and ask questions related to the material being taught"; 4 students had the third indicator "Not doing other activities that are not related to learning; and 5 students in the fourth indicator "Respond to the material taught" then there was an increase again in the first cycle of meeting two, where the total of students who met all the indicators was 8 students or 50%, this result was explained by the fact that there were 12 students who met the first indicator, "Showing acceptance or attention to the subject matter"; 8 students in the second indicator "Able to answer and ask questions related to the material being taught"; 8

students had the third indicator "Not doing other activities that are not related to learning; and 8 students had the fourth indicator "Responding to the material taught, these results show that there has been consistent improvement at each meeting, but they still do not meet the research success criteria.

After the action phase of cycle I, reflection shows that the application of the Problem Based Learning (PBL) model has succeeded in increasing student involvement and focus during the learning process. Students gain motivation and become more involved in class debates and presentations. Students become more focused and engage in fewer non-learning activities. PBL also encourages the growth of critical thinking and problem-solving abilities, as well as improved teamwork and communication. However, there are still a number of challenges, including poor time management and collaboration skills, and some students being less engaged. the researcher observed that group management needed to be improved. To improve PBL in the classroom, cycle II planning will be carried out with modifications based on these findings.

Cycle 2

Cycle 2 is carried out by focusing on reflection carried out after the actions of the previous cycle. This aims to improve the deficiencies in cycle 1, by applying the same learning model, namely Problem Based Learning (PBL). The results of this research show that in cycle 2, meeting 1 There was an increase where from cycle 1 only 8 or 50% of students met all the indicators, this increased to 12 students or 75%. This explained that there were 14 students who met the first indicator, "Showing acceptance or attention to the lesson material"; 15 students in the second indicator "Able to answer and ask questions related to the material being taught"; 12 students with the third indicator "Do not carry out other activities that are not related to learning; and 13 students were given the fourth indicator "Responding to the material taught, this result shows that there was a consistent increase at each meeting, but still did not meet the criteria for research success. Then at the second meeting there was an increase which shows the consistency of the research, where the overall result was 14 or 87.5 % of students who were able to meet all indicators with 14 students who met the first indicator, "Showing acceptance or attention to the lesson material"; 14 students in the second indicator "Able to answer and ask questions related to the material being taught"; 15 students with the third indicator "Do not carry out other activities that are not related to learning; and 15 students with the fourth indicator "Responding to the material taught, these results show that there is a consistent increase in each meeting, but still do not meet the research success criteria. The results of research in cycle 2 show that there is a significant increase in student learning concentration and has exceeded research success rate.

Based on this research, it can be concluded that there has been an increase in learning concentration with the Problem Based Learning (PBL) learning model. This can be seen from the results of observations which show that in the pre-cycle before action was taken with PBL, students' learning concentration was very low, namely only 2 or 12, 5% of students met the four indicators, then after being given action there was an increase in the first cycle of 8 or 50% of students had met the active indicators. This shows an increase of 37.5% from the pre-cycle, and in the second cycle there was an increase of 14 or 87.5% of students have fulfilled all learning concentration indicators, this shows an increase of 37.5% from the first cycle.

In the learning process using the Problem Based Learning (PBL) model, students become more motivated, because they are very enthusiastic about working on questions by collaborating in groups, by presenting everyday problems in learning, for example by measuring tape, determining prices, measuring objects around them. The Problem Based

Learning (PBL) learning model is also able to increase their curiosity, by applying this model they are more focused on learning.

The results of this research are strengthened by previous research conducted by (Nursolehatun, 2023) where the Problem-Based Learning (PBL) learning model in thematic learning has been proven to be able to increase student learning concentration. From a low initial condition of 39.5%, there was an increase to 49.5% (medium) in cycle I and reached 82.97% (very high) in cycle II. The percentage increase from pre-cycle to cycle I was 10%, and from cycle I to cycle II was 33.47%. With this achievement, the specified success indicators have been met. The application of the PBL model to thematic learning makes all students able to concentrate well, and most students are able to concentrate very well. Then according to (Ernawati, 2023) in learning using the Problem-Based Learning (PBL) model, students are given the opportunity to be actively involved in activities in the classroom. This activity can be seen from students' responses to the problems they are facing, so that students have full concentration in solving problems. Student concentration in learning also influences student learning outcomes, where from research conducted by (Ayu & Nisa, 2023) regarding the use of the Problem Based Learning learning model assisted by snakes and ladders media can increase students' learning concentration in PPKn learning in grade 2 elementary school. Negeri Sokowaten Baru, this research explains that in each cycle, four stages are carried out, namely planning, implementation, observation and reflection. Based on data analysis, the results obtained were an increase in students' learning concentration. Before the action, the average score obtained was 52.9. In the first cycle, the average score of students' learning concentration increased to 68.5, with an increase of 15.6%. In the second cycle, the average learning concentration score reached 77.9, with a total increase of 9.4%.

4. CONCLUSION

This research shows that the application of the Problem Based Learning (PBL) learning model can significantly increase students' learning concentration in class V of elementary schools. In the initial pre-cycle conditions, students' learning concentration was relatively low, with only 2 students (12.5%) meeting the four learning concentration indicators. After implementing the actions in cycle I, there was an increase to 8 students (50%) who met the indicators, showing an increase of 37.5% from pre-cycle. In cycle II, the results were more significant with 14 students (87.5%) meeting all learning concentration indicators, reflecting an increase of 37.5% from cycle I.

The PBL model not only increases learning concentration but also motivates students to be more active and involved in learning. Students become more enthusiastic in doing group assignments, show increased curiosity and the ability to focus on learning material. This research strengthens previous findings that PBL is an effective method for increasing student engagement and concentration in learning. Thus, the application of the Problem Based Learning (PBL) model has proven to be effective in improving student concentration and learning quality. This shows that interactive and problem-based teaching methods can be a solution to the problem of students' low learning concentration, as well as improving their overall learning outcomes.

REFERENCES

Amalia, A., Hilyana, F. S., Keguruan, F., & Kudus, U. M. (2022). *Konsentrasi Belajar Siswa Pada Mata Pelajaran IPA*. *8*(4), 1261–1268. https://doi.org/10.31949/educatio.v8i4.3120

Andriana, E., Rokmanah, S., & Aprilia, L. (2023). Analisis tingkat konsentrasi belajar peserta didik dalam proses pembelajaran di sd negeri tembong 2. *Holistika Jurnal Ilmiah Pgsd*, *7*(1), 1–5. Retrieved from https://jurnal.umj.ac.id/index.php/holistika/article/view/14653

Asmani, J. M. (2016). *Tips Efektif Cooperative Learning* (1st ed.; N. Sawitri, ed.). Yogyakarta: DIVA Press.

Asyhari, S. H., & Hidayat, H. (2023). Pengembangan Media Pembelajaran Doratoon Berbasis PBL untuk Meningkatkan Minat Belajar Siswa pada Mata Pelajaran IPA Kelas IV SD. *Jurnal Dirosah Islamiyah*, *6*(1), 109–123. https://doi.org/10.47467/jdi.v6i1.5339

Ayu, & Nisa. (2023). Prosiding Seminar Nasional Pendidikan Profesi Guru Upaya Meningkatkan Konsentrasi Belajar Melalui Model Problem Based Learning Berbantuan Media Ular Tangga Kelas 2 SD Sokowaten Baru. *Pendidikan*, *2*(1).

Ernawati, E. (2023). Pengaruh Model Pembelajaran Problem Based Learning (Pbl) Dalam Meningkatkan Konsentrasi Belajar Siswa Sekolah Dasar Pada Mata Pelajaran Tematik Terpadu Ditinjau Dari Hasil Belajar. *Jurnal Elementary*, *6*(1), 90. https://doi.org/10.31764/elementary.v6i1.12923

Khotimah, S. H., Sunaryati, T., & Suhartini, S. (2021). *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini Penerapan Media Gambar Sebagai Upaya dalam Peningkatan Konsentrasi Belajar Anak Usia Dini Abstrak*. *5*(1), 676–685. https://doi.org/10.31004/obsesi.v5i1.683

Lickona, T. (1991). Mendidik Untuk Membentuk Karakter. *A Bantam Books*, (14), 72–73.

Murdaningrum, R., Purwati, S., & Safitri, E. N. (2023). Penerapan Model Pembelajaran Problem Based Learning (Pbl) Berbantuan Video Animasi Untuk Meningkatkan Pemahaman Konsep Peserta Didik di Kelas Vii B Smp Negeri 10 Semarang. *Seminar Nasional IPA XIII*, 94–102.

Nursolehatun, T. (2023). Peningkatan Konsentrasi Belajar Pembelajaran Tematik Menggunakan Model Problem Based Learning Kelas II. *Paedagogie*, *18*(1), 9. https://doi.org/10.31603/paedagogie.v13i1.2060

Putri, T. A., Purba, R., Cahyani, W. R., & Abdulah, S. (2022). Upaya Meningkatkan Pemahaman Siswa Dalam Menyelesaikan Soal Cerita Pada Mata Pelajaran Matematika Melalui Model Pembelajaran PBL Pada Siswa Kelas V Sdn 55/I Sridadi. *Jurnal Pendidikan Dan Konseling*, *4*, 1349–1358.