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Implementation of Humanistic Approach in Mathematics Learning Process and its Impact on Learning Motivation in Elementary School

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Abstract
Mathematics learning is a mental activity to understand the meaning in relationships and symbols and then applied to real situations. Conventional methods have proven to be less effective in improving student understanding, so a humanistic approach to math learning is needed. This study aims to analyze the humanistic approach implemented in mathematics learning and its impact on student learning motivation in elementary schools. There are similar concepts between mathematics learning and the humanistic approach, both emphasizing the importance of respecting each individual in relationships and symbols that will be applied in real life. This research uses a descriptive research design through a case study approach. The researcher aims to increase motivation, interest and learning outcomes that arise when applying a humanistic approach in mathematics learning. Observations were made related to the planning, implementation, and evaluation of the learning process, data collection techniques include various methods such as observation, interviews, and performance. The research subjects consisted of 20 grade 6 students of SDN Batujajar 1, consisting of 10 male students and 10 female students in the 2024/2025 school year. The research findings show that the application of the humanistic approach in learning mathematics has a positive impact on student motivation, interest and learning outcomes.The abstract should be clear, concise, and descriptive.

Keywords:
Humanistic approach,
Math learning,
Learning motivation

1. Introduction

Mathematics is a discipline that plays an important role in the advancement of human civilization. Mathematics learning is highly significant due to its broad influence across various aspects of life. Many forms of information and ideas are conveyed through the language of mathematics, and numerous problems encountered in daily life can be solved using mathematical approaches. However, in reality, mathematics learning is often perceived as less engaging by students. Some students regard mathematics as a difficult and frightening subject. This perception stems from the view that learning mathematics is an unpleasant experience. Such assumptions arise not only from societal influences that portray mathematics as abstract, theoretical, and formula-oriented, but also from students' previous learning experiences that were less enjoyable during the mathematics learning process (Gazali, 2016).

In practice, mathematics instruction generally follows three main steps: explaining the material, providing examples, and assigning exercises similar to the examples given (Gressyela et al., 2022). This approach tends to position students as passive recipients of information, offering limited opportunities for them to develop their potential, construct deep conceptual understanding, and cultivate critical thinking skills. Therefore, mathematics learning needs to be optimized so that students can actively participate as subjects of learning. Teachers are required to implement learning strategies that encourage students to think freely, actively, and creatively in order to explore and develop their individual potential (Natalia et al., 2021).

The learning process is closely related to the learning theories and approaches mastered by teachers. As professionals, teachers need to have a comprehensive understanding of various learning theories to achieve learning objectives optimally. One learning theory that is relevant to mathematics instruction is humanistic learning theory (Patria & Salamah, 2022).

The humanistic approach to learning emphasizes the humanization of learners by paying attention to their holistic development. This approach does not only focus on cognitive aspects but also considers emotional dimensions, feelings, open communication, and students' values. Through this approach, students are expected to achieve self-actualization, develop responsibility, care for their environment, and attain emotional and spiritual maturity. Anam (2014) explains that humanistic theory encourages students to feel, reflect on, and understand their own potential rather than merely receiving knowledge. Learning freedom provides opportunities for students to control their own learning processes, empathy requires teachers to understand students' needs and challenges, while personal potential development emphasizes recognition of each individual's uniqueness (Maslow, 1954).

The application of a humanistic approach in elementary school mathematics learning is believed to enhance students' motivation and interest in learning, which ultimately leads to improved learning outcomes. Sultan and Hussain (2011) state that the humanistic approach can increase learning motivation by granting students the freedom to take initiative and responsibility for their own learning processes.

Conditions at SDN Batujajar 1 indicate that some students still experience difficulties in understanding mathematics material, which negatively affects their motivation and interest in learning. This situation creates disparities in students' learning achievement and requires more effective instructional efforts that are oriented toward students' needs. Therefore, a learning approach is needed that not only emphasizes mastery of content but also considers motivation, engagement, and students' overall learning experiences.

Several previous studies have shown that the humanistic approach has a positive impact on mathematics learning. Research by Maifit Hendriani and Neviyarni S. (2023) revealed that the implementation of an open-ended approach based on humanistic theory provides students with the freedom to discover multiple solutions, develop their potential, and increase motivation and interest in learning. Similarly, a study by Rosdiati Mendrofa (2024) demonstrated that applying humanistic theory through the Contextual Teaching and Learning model significantly improves students' motivation, activeness, and learning outcomes.

Based on the above discussion, it can be concluded that the humanistic approach has considerable potential to address problems in mathematics learning, particularly those related to low student motivation and learning outcomes. Nevertheless, the implementation of a humanistic approach needs to be examined more specifically in accordance with the context and characteristics of students in each educational setting.

Therefore, this study specifically focuses on analyzing the application of a humanistic approach in mathematics learning at SDN Batujajar 1 and its impact on students' motivation and learning outcomes. With this focus, the study aims to describe how the humanistic approach is implemented in mathematics instruction and to analyze its influence on improving students' learning motivation, which subsequently affects their mathematics learning outcomes. Clarifying the focus and objectives of this study is expected to provide clear, systematic, and easily understood research direction for readers.

2. Method

This study employed a qualitative descriptive method with a case study approach. The qualitative descriptive approach was chosen to provide an in-depth description of students' learning activities in mathematics instruction in Grade VI at SDN Batujajar 1. The case study approach was applied because the research focused on a specific context, namely the implementation of a humanistic approach in mathematics learning within a single class at one educational institution, allowing the researcher to understand the learning phenomenon comprehensively and contextually.

Qualitative descriptive research emphasizes the quality of learning processes and outcomes rather than relying solely on statistical calculations. Therefore, research data were collected using multiple techniques, including observation, interviews, and documentation of students' performance, in order to obtain a holistic picture of the implementation of the humanistic approach and its impact on students' motivation and learning outcomes.

Observations were conducted directly during the mathematics learning process. The observations were participatory and non-interventionist, in which the researcher observed student and teacher activities without disrupting the learning process. The observed aspects included students' activeness, interactions between teachers and students, students' courage in expressing opinions, questioning skills, and self-confidence when presenting their work. Observation results were recorded in the form of systematically organized field notes based on the research indicators.

Semi structured interviews were conducted with students and the classroom teacher to obtain more in-depth data regarding learning experiences, students' perceptions of mathematics learning, and the teacher's views on changes in students' motivation and engagement following the implementation of the humanistic approach. The interview guidelines were developed based on the research focus while still allowing informants the freedom to express their opinions and experiences openly.

In addition, data were collected through documentation of students' performance, such as assignments, worksheets, and final test scores. These data were used to support the findings from observations and interviews, particularly in identifying trends in students' learning outcomes after the implementation of the humanistic approach.

Data analysis was conducted qualitatively through several stages. The first stage was data reduction, which involved selecting and focusing on data relevant to the research objectives. The second stage was coding, in which data were grouped based on similarities in meaning related to students' motivation, interest, and learning outcomes. Subsequently, the coded data were categorized into main themes, such as learning activeness, courage in expressing opinions, independence in problem solving, and self confidence. The final stage was drawing conclusions by interpreting the research findings comprehensively in accordance with the research focus and objectives.

To ensure data credibility, this study employed technique triangulation by comparing data obtained from observations, interviews, and documentation. Through triangulation, the data became more valid and scientifically accountable.

The achievement indicators for fostering motivation, interest, and learning outcomes through the implementation of the humanistic approach were operationally defined as follows: (1) students' courage in expressing opinions, indicated by active participation in classroom discussions; (2) questioning ability, characterized by students' initiative in asking relevant questions to deepen their understanding of the material; (3) problem-solving skills, reflected in students' ability to find solutions independently or through discussion; (4) self-confidence, demonstrated by students' courage and fluency when presenting their work in front of the class; and (5) learning outcomes, measured by the achievement of average final test scores exceeding the school's established Minimum Mastery Criterion (KKM).

With this methodological explanation, the study is expected to provide a systematic, valid, and in depth description of the implementation of the humanistic approach in mathematics learning and its impact on students' motivation and learning outcomes.

3. Results and Discussion

3.1 Results

The implementation of the humanistic approach in mathematics learning was carried out on Monday, April 14, 2025, on the topic of three-dimensional shapes in Grade VI at SDN Batujajar 1 during the 2024/2025 academic year. The learning process began with the formulation of learning objectives and the mapping of students' learning needs based on the results of diagnostic tests and initial interviews. This mapping served as the basis for designing learning activities oriented toward students' individual characteristics and needs.

To obtain a more objective picture of changes in students' motivation and confidence, the researcher descriptively and qualitatively compared students' conditions before and after the implementation of the humanistic approach. At the initial stage of learning (before the intervention), preliminary observations showed that most students tended to be passive, hesitant to express their opinions, and only a few students were willing to ask questions or respond to the teacher's questions. Out of 20 students, only about 5–6 students consistently participated actively in classroom discussions, while the others preferred to remain silent or wait for direct instructions from the teacher.

After the implementation of the humanistic approach, a significant change in students' learning behavior was observed. Based on classroom observations, the number of students who dared to ask

questions increased to more than half of the class. This improvement was also reflected in group discussion activities and question-and-answer sessions, during which students became more active in expressing their ideas and opinions. For example, during one discussion session, approximately 10 instances were recorded in which students voluntarily raised their hands to answer questions or ask questions related to the concept of volume in three-dimensional shapes.

These findings were further supported by brief interviews with students. Several students stated that the learning process felt more enjoyable and less stressful. One student remarked, "Now I dare to ask questions because I am not afraid of making mistakes, since the teacher and classmates do not immediately blame me." Another student commented, "Group learning and using videos help me understand better, so I feel more confident when coming to the front of the class." These statements indicate positive changes in students' attitudes and self-confidence following the implementation of the humanistic approach.

The table of students' learning motivation indicators, measured using a 1–5 scale, was derived from observation-based assessments conducted during the learning process. The scale was interpreted as follows: a score of 1 indicated very low motivation, 2 low motivation, 3 moderate motivation, 4 good motivation, and 5 very good motivation. The assessment considered both the frequency and quality of students' behaviors observed during learning activities, such as active questioning, participation in discussions, perseverance in completing tasks, and expressions of enthusiasm throughout the lesson.

Based on the learning motivation table, the indicator of "interest and enthusiasm for learning" obtained an average score of 5, indicating that most students demonstrated a high level of interest in mathematics learning using the humanistic approach. The indicators of "activeness in learning" and "perseverance in completing tasks" achieved average scores of 4, suggesting that the majority of students were actively involved, although some still required additional guidance. Meanwhile, the indicator of "learning comfort and enjoyment" also showed a high score, as reflected in a more dynamic classroom atmosphere, positive interactions, and students' enthusiastic responses to games and instructional media.

In addition to motivation, improvements in students' courage and self-confidence were also evident during presentation activities. While initially only a few students were willing to come forward to present their work, after the implementation of the humanistic approach almost every group was able to send a representative to present the results of their discussion. Although students' presentation fluency varied, overall they demonstrated greater confidence in expressing their ideas in front of the class.

Thus, although this study did not employ a quantitative inferential comparison using pre-tests and post-tests, the observation data, rubric-based motivation scores, documentation of student activities, and direct student quotations indicate a tendency toward increased motivation, confidence, and activeness in mathematics learning following the implementation of the humanistic approach. These findings strengthen the conclusion that the humanistic approach contributes positively to students' learning experiences and motivation.

Table 1. Peer Observation Sheet

No.	Indicator	✓ Often	✓ Sometimes	✓ Rarely	Notes/Concrete Examples
1	The teacher gives students the opportunity to ask questions	✓			The teacher opens a question and answer session after the demonstration: 5 students ask questions
2	The teacher uses open-ended questions	✓			"In your opinion, how do you find the volume of a prism?"
3	Students actively answer and ask questions	✓			Students raise their hands 10 times to answer or ask the formula for the volume of a space.
4	Teacher responds to students' answers with constructive feedback	✓			The teacher praises the correct answer and corrects the wrong step with additional explanation

No.	Indicator	✓ Often	✓ Sometimes	✓ Rarely	Notes/Concrete Examples
5	The use of learning media (LCD, board, props) supports interaction	✓			Projector shows a short video, color differentiation markers facilitate visualization of steps
6	Transition between activities is smooth	✓			From lecture to group discussion within 2 minutes without interruption
7	Classroom atmosphere is conducive (student engagement and focus)	✓			The majority of students remain focused, only 2 students need to be reminded to return to their group.

Based on the results of observations of students during learning and the products produced by students, it can be concluded that the humanistic approach to learning mathematics has an influence on student learning motivation. Students' motivation increases in learning mathematics. This can be seen from the learning attitude of students and the confidence of students. Learners become more enthusiastic about learning, more courageous to express their opinions about learning materials. In addition, learners also have high curiosity and ask questions to deepen their knowledge of the material. Based on the results of observations, it can be seen that the motivation of students is developing well in learning mathematics. The increase in student learning motivation can be seen from several indicators and student behavior listed in the following table:

Table 2: Indicators of Student Learning Motivation

No	Behavior Indicator	Brief Description	Scale (1-5)	Description / Notes
1	Increased Interest and Enthusiasm	Students are more interested in learning because of the interactive method	5	Many students actively respond to the interactive quiz and scramble to do the questions.
2	Active Engagement in Learning	Students actively participate: coming forward, discussing, finding solutions	4	Students A and C often come forward to explain answers, although some are still hesitant.
3	Perseverance in Task	Students do not give up easily and try various strategies	4	Student D kept trying even though the problem was confusing; asked friends.
4	Enjoyment in Learning	Students feel relaxed and enjoy interesting learning	5	There is light laughter and positive comments during math game activities.
5	Improved Memory and Understanding	Students remember concepts more easily due to interaction and visualization	4	During the short evaluation, most students remembered the steps of flat area.

At the end of the activity, students are asked to reflect on the learning process. Based on the learning activities carried out, it can be seen that students are more courageous in expressing their opinions on learning materials. In addition, learners have high curiosity and ask questions to deepen their knowledge of the material. The humanistic approach can have a positive impact on student motivation, provide meaningful learning experiences, foster student interest in learning, and of course also have an impact on improving student learning outcomes.

3.2 Discussion

The application of the humanistic approach to learning mathematics in elementary schools is a strategy used to meet the individual needs and expectations of students. This approach is supported by a humanistic philosophy that emphasizes respect for individuals to develop the potential of learners. The main focus of educators is to help learners in self-understanding, recognizing the uniqueness of learners as individuals, and encouraging the development of their potential (Saputra, 2022). Basically, humanistic mathematics involves teaching humanistic content using humanistic pedagogy in the belief that lack of student motivation is the root cause of attitude and literacy problems in mathematics education. The movement is to find educational processes that are fun (excitement) and challenging (wonderment) with discovery and creation activities (Alkhasanah et al., 2022). Thus humanistic mathematics directs learning that gives students the freedom to learn actively which is fun and gives students the freedom to be challenged to make creations (Maslukiyah & Rumondor, 2020). The application of the humanistic approach to mathematics learning aims to analyze the impact of mathematics learning on student motivation, learning interest of grade VI students of SDN Batujajar 1 in the 2024/2025 academic year.

According to Slameto in research (Sudharsono et al., 2025) there are several components to foster student learning motivation in learning, namely: 1) Learning media, media is a tool that becomes a link in the learning process. 2) Learning materials, teachers must prepare materials to be taught in accordance with the curriculum, learning objectives, structured and pay attention to student characteristics. 3) Student-centered learning methods and strategies, so that students are motivated to learn while doing (learning by doing). Students who have high learning motivation will feel the need for math lessons to learn. Because this math material can be useful for students' lives in the future.

According to Cornelius as cited by (Savitri et al., 2020), there are five reasons for the importance of learning mathematics, namely: (1) the ability to think concretely and relevantly, (2) the ability in everyday life in problem solving, (3) the ability to understand patterns of connection and generalization of experience, (4) the ability to increase creativity, and (5) the ability to build awareness of cultural development.

The application of the humanistic approach to mathematics learning starts from the planning stage, followed by preliminary activities, core activities, and final activities. In this approach, the difference that is emphasized lies in a deep understanding of the characteristics of students before learning begins, so that educational services can be adjusted appropriately.

The first step in learning mathematics is setting learning objectives, which act as targets for learners. The next step involves mapping learners' learning needs, using the results of previous tests and interviews. The mapping results show that learners already have knowledge and skills that are relevant to the new material to be learned. Based on the learning activities carried out, it appears that learners are more willing to express their opinions on the learning material. In addition, learners have high curiosity and ask questions to deepen their knowledge of the material. The humanistic approach can have a positive impact on the motivation of students, provide meaningful learning experiences, foster students' interest in learning, and of course also have an impact on improving student learning outcomes.The discussion should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

4. Conclusion

This study demonstrates that the implementation of a humanistic approach in elementary school mathematics learning not only influences changes in students' learning behaviors but also enriches the understanding of how mathematics instruction can be designed to be more student centered. The findings affirm that the humanistic approach is able to bridge cognitive and affective aspects of mathematics learning, particularly through recognition of students' individual needs, interests, and characteristics.

From a theoretical perspective, the results of this study reinforce the relevance of humanistic learning theory in the context of elementary school mathematics education. Learning environments that provide space for freedom, empathy, and self actualization have been shown to enhance students' motivation and self-confidence, which are often major obstacles in mathematics learning. Thus, this study contributes to the field of mathematics education by emphasizing that learning success is not solely

determined by conceptual mastery, but also by meaningful learning experiences that humanize students as active subjects of learning.

From a practical standpoint, this study implies that teachers need to design mathematics instruction that is flexible and adaptive to individual differences among students, such as learning readiness, learning styles, and interests and talents. The humanistic approach can be implemented through mapping students' learning needs, utilizing diverse instructional media, providing freedom for students to express their understanding, and creating a safe and supportive classroom environment. These practices have the potential to increase student engagement and improve negative perceptions of mathematics, which is often regarded as difficult and intimidating.

Nevertheless, this study has several limitations. The research was conducted in only one class with a limited number of participants and employed a qualitative descriptive approach; therefore, the findings cannot be widely generalized. In addition, the measurement of improvements in motivation and learning outcomes was descriptive in nature and was not supported by stronger inferential quantitative analysis.

Based on these limitations, future research is recommended to develop more comprehensive research designs, such as combining qualitative and quantitative approaches, involving more diverse participants, and conducting systematic pre-test and post-test comparisons. Further studies may also explore the application of the humanistic approach to different mathematics topics or integrate it with other instructional models to enrich mathematics learning strategies in elementary schools.

In conclusion, this study provides an important initial contribution to strengthening more humanistic, contextual, and holistic mathematics learning practices that are oriented toward the comprehensive development of students' potential.

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