

APPLICATION OF CONSTRUCTIVISM THEORY IN THE LEARNING PROCESS IN SCHOOLS

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Abstract: Constructivism theory is a learning approach that emphasizes that knowledge is actively constructed by students through experience and interaction in the learning process. In school learning, the application of constructivism is important because it can encourage students to be more active in understanding the material and developing their thinking skills. This article aims to examine the application of constructivism theory in the learning process in schools. The method used is a literature review by examining various sources such as relevant books and scientific journals. The results of the study show that the application of constructivism can be carried out through discussion activities, problem solving, and learning that involves students' direct experiences. Through this approach, students become more active in building knowledge, while the teacher acts as a facilitator in the learning process. Thus, the application of constructivism theory can create more active and meaningful learning for students.

Keywords: constructivism, learning, students.

INTRODUCTION

The learning process at school is an important activity in achieving educational goals. Learning is not only aimed at conveying information from teachers to students, but also to help students understand, develop, and build on their existing knowledge. Therefore, a learning approach is needed that can actively involve students in the learning process. According to Woolfolk (2017), learning will become more meaningful if students are actively involved in building their own understanding of the material being studied. One approach that emphasizes student activity in learning is constructivism theory. Constructivism theory views that knowledge cannot simply be transferred from teacher to student, but must be constructed by students themselves through experience and interaction with the environment. Suparno (1997) explains that constructivism is a view which states that knowledge is formed by individuals through an active process of understanding the experiences they gain. In constructivist learning, students act as active subjects in building knowledge, while teachers act as facilitators who guide and direct the

learning process. Trianto (2010) stated that learning based on constructivism provides students with the opportunity to discover and construct their own knowledge concepts through active learning activities. Thus, the learning process is no longer teacher-centered, but student-centered.

In addition, the application of constructivism in learning can also help students develop critical thinking skills and problem-solving skills. Through learning activities that involve discussion, questions and answers, and exploration of material, students can relate new knowledge to their previous experiences. Sanjaya (2008) stated that constructivist learning emphasizes the importance of active student involvement in building knowledge so that the learning process becomes more meaningful. Learning that applies the principles of constructivism also encourages the creation of a more interactive learning atmosphere. Students do not only receive information passively, but are also involved in the process of discovering and understanding the concepts being studied. This makes it easier for students to understand the material because knowledge is acquired through real learning experiences. In this way, learning becomes more interesting and can increase students' learning motivation.

In addition to increasing learning activity, the constructivist approach also helps students develop the ability to work together with friends and appreciate different opinions. Through learning activities such as group discussions and collaboration in completing assignments, students can learn to exchange ideas and broaden their understanding of a concept. This is in line with Slavin's opinion (2012) which states that learning that involves interaction between students can help them build deeper knowledge. Based on this description, this article aims to examine the application of constructivism theory in the learning process in schools and explain the importance of the constructivism approach in creating active and effective learning.

DESCRIPTION OF CONSTRUCTIVISM THEORY

Constructivism theory is a learning theory that emphasizes that knowledge is not only obtained from teacher explanations, but is constructed by students themselves through experience and interaction with the environment. In the constructivist view, the learning process occurs when students actively process information, connect new knowledge with knowledge they already have, and form understanding independently. This shows that students have an important role in the learning process. According to Suparno (1997), constructivism is a view which states that knowledge is actively formed by individuals

through the process of thinking and experiences they undergo. In other words, knowledge cannot simply be transferred from teacher to student, but must be constructed by students through the learning activities they undertake. Therefore, learning based on constructivism places more emphasis on the learning process rather than just the learning outcomes. Another opinion was also put forward by Trianto (2010) who stated that constructivism is a learning approach that provides students with the opportunity to discover and construct their own knowledge concepts through active learning activities. In this learning, students do not only receive information passively, but are also involved in various activities such as discussing, asking questions, and solving problems. In addition, Woolfolk (2017) explains that constructivism views learning as an active process in which students construct their understanding by connecting new information with previously acquired knowledge. This process can occur through learning experiences that involve interaction with the environment and with other people. Based on the opinions of several experts, it can be concluded that constructivism theory is a learning approach that emphasizes the active role of students in building knowledge through experience, interaction, and the thinking processes carried out during learning activities.

ADVANTAGES OF APPLYING CONSTRUCTIVISM THEORY IN LEARNING

The application of constructivist theory in the learning process has several advantages that can improve the quality of student learning. One of the main advantages of this approach is that it enables students to be more active in constructing their own knowledge. In constructivist learning, students do not only receive information from the teacher passively, but they are directly involved in the process of discovering and understanding concepts through learning experiences. Students are encouraged to observe, ask questions, discuss, and find solutions to given problems. This makes the learning process more meaningful because students understand the material based on their own experiences and thinking. According to Suparno (1997), in constructivism theory, knowledge cannot simply be transferred from teacher to student, but must be constructed by the student themselves through the process of thinking and learning experiences they undergo. This shows that student-centered learning can help them understand concepts more deeply than just memorizing the material given by the teacher. According to Suparno (1997), in constructivism theory, knowledge cannot simply be transferred from teacher to student, but must be constructed by the student themselves through the process of thinking and learning experiences they undergo. This shows that student-centered learning can help them

understand concepts more deeply than just memorizing the material given by the teacher. Furthermore, the application of constructivism can also increase student motivation to learn. Learning that involves activities such as group discussions, problem-solving, experiments, and collaboration among students can create a more engaging and less boring learning environment. When students feel actively involved in the learning process, they will be more motivated to learn and understand the material being studied. This is in line with Yulianti's research (2024) which states that the application of constructivism theory in learning can increase students' learning motivation because students have the opportunity to participate actively in the learning process. Another advantage of constructivist learning is its ability to develop students' critical and creative thinking skills. In this approach, students don't simply receive answers from the teacher, but are encouraged to analyze a problem, express their opinions, and explore alternative solutions. Through this process, students learn to think logically and systematically. According to research by Rosita et al. (2024), implementing a constructivist approach in learning can improve critical thinking skills and student learning outcomes because students are actively involved in the process of discovering knowledge. Apart from improving thinking skills, the constructivist approach can also help students relate new knowledge to their previous experiences. When students can connect the concepts they learn to everyday experiences, their understanding of the material becomes stronger and easier to remember. Glasersfeld (1995) explains that, from a constructivist perspective, the learning process occurs when individuals construct meaning from their experiences. Therefore, learning that links material to students' experiences will make the learning process more effective.

Another advantage is that constructivist learning can improve students' collaboration and communication skills. In learning activities such as group discussions or group work, students learn to exchange opinions, respect others' perspectives, and collaborate to complete a task. This not only helps students understand the subject matter but also trains them in social skills that are essential for everyday life. Therefore, the application of constructivism focuses not only on cognitive aspects but also on students' social and emotional development. Furthermore, in some situations, constructivist learning also requires adequate facilities or learning media. Activities such as experiments, group discussions, or learning projects often require specific tools and materials. If school facilities are limited, the implementation of constructivist learning may be less than optimal. Based on this discussion, it can be concluded that applying constructivist theory to the learning process in schools has many advantages, such as increasing student

engagement, learning motivation, critical thinking skills, and collaboration skills. Student-centered learning also makes the learning process more meaningful because students construct their own knowledge through learning experiences.

DISADVANTAGES OF APPLYING CONSTRUCTIVISM THEORY IN LEARNING

Despite its many advantages, the application of constructivist theory in learning also has several drawbacks that teachers need to be aware of. One major drawback is that the learning process takes longer than conventional learning. In constructivist learning, students must go through various stages, such as exploration, discussion, and independent concept discovery. This process naturally requires more time, so teachers need to manage learning time effectively to ensure learning objectives are achieved. According to Li (2025), constructivist-based learning methods tend to require more time because students must actively construct their own understanding through a learning process involving various activities. Therefore, teachers need to design learning activities effectively to ensure efficient use of time. Another drawback is that not all students have the same independent learning abilities. In constructivist learning, students are required to actively seek and understand information. However, for students who are not accustomed to independent learning or have lower academic abilities, this process can be challenging. They may require more intensive guidance from teachers to effectively follow the learning process.

Furthermore, the application of constructivism also requires teachers to possess advanced skills in designing learning. Teachers must be able to create engaging learning activities, pose questions that stimulate students' thinking, and guide them in discovering concepts independently. If teachers are unable to design appropriate learning activities, the objectives of constructivist learning will not be fully achieved. According to Rusman (2012), the success of student-centered learning is greatly influenced by the teacher's ability to manage the classroom and design effective learning strategies. Another drawback is the potential for differences in understanding among students. Because in constructivism, each student constructs knowledge based on their own experiences and thinking, the understanding gained by each student can vary. This can be a challenge for teachers to ensure that all students understand the correct concepts in accordance with the learning objectives.

It can be concluded that constructivism has several drawbacks, such as requiring longer learning times, requiring students to be prepared for independent learning, and requiring teacher creativity in designing learning activities. Therefore, teachers need to adapt the application of constructivism theory to the students' conditions and learning situations to ensure effective learning.

COMPARISON OF CONSTRUCTIVISM THEORY WITH OTHER LEARNING APPROACHES

In the learning process at school, there are various approaches that teachers can use, such as constructivism, behaviorism, and conventional teacher-centered learning approaches. Each approach has distinct characteristics in viewing the learning process and the roles of teachers and students in learning activities. The constructivist approach emphasizes that knowledge is constructed by students through learning experiences and interactions with the environment. In this approach, students play an active role in discovering and understanding learning concepts, while the teacher acts as a facilitator who guides the learning process. According to Suparno (1997), in constructivist theory, knowledge cannot simply be transferred from teacher to student but must be constructed by the student themselves through their experiences and thought processes. Therefore, constructivist learning usually involves activities such as group discussions, problem solving, experiments, and collaboration between students.

In contrast to constructivism, the behaviorist approach views learning as a change in behavior that occurs as a result of a stimulus and a response. In this approach, the learning process places greater emphasis on providing practice, repetition, and reinforcement to shape desired learning behaviors. According to Skinner (1953), learning behavior can be shaped by providing appropriate stimuli and reinforcing correct responses. Therefore, in behaviorist learning, the teacher's role becomes more dominant as both a provider of information and a controller of student learning activities. Furthermore, there are also conventional or traditional learning approaches, which are typically teacher-centered. In this approach, the teacher is the primary source of information, while students tend to act as passive recipients of the material. The teacher explains the subject matter through lectures, while students listen and take notes. According to Sanjaya (2008), teacher-centered learning often makes students less active in the learning process because most learning activities are controlled by the teacher. Compared with behaviorist and conventional learning approaches, the constructivist approach has advantages in increasing

student activity and understanding. In constructivism, students not only memorize information but also understand concepts through meaningful learning experiences. Research by Rosita et al. (2024) shows that implementing a constructivist approach in learning can improve learning outcomes and students' critical thinking skills because students are actively involved in the learning process.

However, the constructivist approach also presents several challenges compared to other approaches. The constructivist learning process typically takes longer because students must go through stages of exploration, discussion, and concept discovery. Furthermore, teachers must also be able to design creative learning activities for this approach to be effective. Therefore, in practice, teachers often combine various learning approaches to ensure the learning process is optimally tailored to students' needs. Thus, it can be concluded that each learning approach has its own advantages and disadvantages. The constructivist approach places more emphasis on student activeness and the process of constructing knowledge independently, while the behaviorist and conventional learning approaches place more emphasis on providing information and developing learning behavior through practice and reinforcement. Therefore, teachers need to choose and adapt the right learning approach so that learning objectives can be achieved properly.

CONCLUSION

Based on the discussion regarding the application of constructivism theory in the learning process in schools, it can be concluded that constructivism theory is a learning approach that emphasizes that knowledge is actively constructed by students through experiences, interactions, and the thought processes they undertake during learning activities. In this approach, students not only receive information from the teacher but are actively involved in discovering and understanding learning concepts. Teachers act as facilitators, guiding students in constructing their own knowledge. Applying constructivist theory to learning has several advantages, including increasing student engagement, motivation, critical thinking skills, and the ability to collaborate and communicate. Student-centered learning also makes the learning process more meaningful because students can connect new knowledge to their previous experiences. However, the application of constructivism also has several disadvantages, such as requiring longer learning time, demanding students' readiness in independent learning, and requiring teachers' creativity and ability in designing interesting and effective learning activities. Furthermore, differences in understanding among students can also pose a challenge in implementing this approach. Compared to

behaviorism and conventional learning approaches, constructivism places greater emphasis on the active role of students in the learning process, while other approaches tend to place the teacher at the center of learning. Therefore, in practice, teachers need to adjust and combine various learning approaches so that learning objectives can be achieved optimally according to student needs. Furthermore, the application of constructivism theory is highly relevant in addressing the demands of 21st-century education, which emphasizes critical, creative, collaborative, and communicative thinking skills. Through student-centered learning, this theory can shape independent, active learners capable of solving real-life problems. Therefore, the application of constructivism is expected to continue to be developed and optimized in the learning process in schools to improve the quality of education and produce high-quality and competitive human resources.

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