CONSTRUCTIVIST TEACHING STRATEGIES TO ENHANCE ACADEMIC OUTCOMES OF LEARNERS

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Abstract

Over the past decades many teaching strategies have been proposed by various educators to improve education of all learners. None of these proposed teaching strategies meets the needs of all students. Constructivist teaching strategies promote active learning, critical thinking, and collaborative problem-solving skills among learners. This research paper aims to explore the effectiveness of constructivist teaching strategies in enhancing academic outcomes of learners. The paper begins by defining constructivism and describing the key principles of constructivist teaching strategies. It then examines the impact of constructivist teaching strategies on academic outcomes, including improved cognitive, affective, and social outcomes. Finally, the paper offers recommendations for teachers seeking to incorporate constructivist teaching strategies into their classrooms. By understanding and implementing constructivist teaching strategies, teachers can promote deeper and more meaningful learning outcomes for their students.

***Keywords:** Constructivist Learning, Teaching Strategies, Problem-Based Learning, Project-Based Learning, Secondary Education.*

INTRODUCTION

The traditional teaching approach that emphasizes a one-way communication approach between the teacher and the students does not always promote deep and meaningful learning outcomes. The constructivist teaching approach offers an alternative teaching approach that encourages active engagement of learners in the learning process. Constructivist teaching strategies are based on the notion that learning is a process of constructing knowledge through interaction and collaboration with the environment. This paper aims to examine the effectiveness of constructivist teaching strategies in enhancing academic outcomes of learners.

Using constructivist learning theory in the classroom forces teachers to avoid directly instructing students. Instead, it creates a learning atmosphere with the least amount of supervision and the most opportunity for students to imagine, articulate, articulate, explain,

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explain, and apply new ideas. new knowledge on their own. According to Audrey Gray, constructivist teaching should be characterized by the following:

- the learners are actively involved

- the environment is democratic

- all activities were interactive and student-centered

- The teacher facilitates a learning process that encourages students to take responsibility and become autonomous learners.

Defining Constructivism

Constructivism is a learning theory that emphasizes the learner's role in constructing knowledge through interaction with the environment. According to constructivism, learners actively construct their knowledge by engaging the world around them, reflecting on their experiences, and making meaning from their observations. In contrast to traditional teaching approaches, which assume that knowledge is transferred from the teacher to the student, constructivism assumes that learners construct their knowledge through interaction and reflection.

Principles of Constructivist Teaching Strategies

Constructivist teaching strategies are based on several key principles, including active learning, collaboration, inquiry-based learning, and reflection. Active learning involves engaging learners in hands-on activities and problem-solving tasks. Collaboration encourages learners to work together to solve problems and share ideas. Inquiry-based learning involves posing questions and encouraging learners to explore and discover answers. Reflection involves encouraging learners to reflect on their experiences and evaluate their learning.

The Impact of Constructivist Teaching Strategies on Academic Outcomes

Numerous studies have shown that constructivist teaching strategies enhance academic outcomes, including cognitive, affective, and social outcomes. Cognitive outcomes include improvements in problem-solving skills, critical thinking skills, and content knowledge. Affective outcomes include improvements in motivation, self-efficacy, and attitudes towards learning. Social outcomes include improvements in collaboration, communication skills, and social skills.

- **Constructivist Teaching Model:**

The Constructivist Teaching Model proposes that learners construct their own understanding of the world based on their experiences. Teachers seek new strategies to help learners connect their past and present experiences. According to conventional wisdom, people possess varying traits and characteristics - some good, some bad, and some more complex. Constructivism is a pedagogical approach that views learning as a process of constructing meaning from new experiences in the context of prior knowledge. Learners construct new ideas by interpreting new experiences in the context of their prior knowledge, making the ideas more meaningful. The strength of constructivism lies in the acquisition of knowledge and its significance for both learners and teachers. Since knowledge cannot be transferred like a commodity, the role of the teacher as a facilitator becomes essential. Pedagogy should encourage interaction and collaboration between students, recognizing that knowledge is constructed in a social context. Learners construct meaning for themselves through interpretation and negotiation, building on their existing knowledge and experiences. According to Von Glasersfeld (1989), children learn through their own thought, reflection, and processing of information.

- **Constructivist teaching strategies** focus on encouraging learners to actively engage with their learning, by constructing meaning from their experiences, knowledge and interactions with others. These strategies help learners to develop higher-order thinking skills, problem-solving abilities and enhance their academic outcomes. Here are some constructivist teaching strategies that can be used to enhance academic outcomes of learners:

Inquiry-Based Learning: This teaching approach emphasizes the importance of questioning, investigation and discovery to promote active learning. Instructors can use open-ended questions to stimulate student curiosity, encourage critical thinking and promote problem-solving.

Collaborative Learning: Collaborative learning involves group work, which allows learners to work together to achieve a common goal. This approach can promote peer-to-peer learning, knowledge sharing, and constructive feedback, which can lead to improved academic outcomes.

Project-Based Learning: This approach involves learners working on a project that requires them to apply knowledge and skills to real-world situations. This approach promotes creativity, problem-solving, critical thinking and teamwork.

Case-Based Learning: Case-based learning involves the use of real-life scenarios to facilitate learning. This approach promotes critical thinking, problem-solving and decision-making skills.

Concept Mapping: This is a visual representation of knowledge, where learners create a diagram of the relationships between concepts. This approach can help learners to organize their knowledge, improve understanding, and promote critical thinking.

Flipped Classroom: This approach involves reversing the traditional model of learning where students learn content in the classroom and then do homework at home. In the flipped classroom, students watch video lectures or read material before class, and then come to class to discuss and apply what they have learned. This approach can promote active learning, critical thinking, and problem-solving skills.

Metacognition: This is the process of thinking about one's own thinking. Metacognition involves learners reflecting on their learning experiences, identifying their strengths and weaknesses, and developing strategies to improve their learning outcomes. This approach can help learners to become more self-aware, improve their academic performance and become indepenent learners.

By employing constructivist teaching strategies, instructors can help learners to develop their own understanding of the world around them, and enhance their academic outcomes.

DATA COLLECTION

Secondary data was obtained from Websites Publications and academic journals. A review of existing literature on Constructivist Teaching Strategies which help to identify the key concepts, theories, and research gaps related to the topic.

OBJECTIVE OF THE STUDY

1. To explore the effectiveness of constructivist teaching strategies in enhancing academic outcomes of learners.
2. To compare the effectiveness of different teaching strategies, such as problem-based learning, inquiry-based learning, and project-based learning, in promoting constructivist learning.

REVIEW OF RELATED LITERATURE

Constructivist teaching strategies have gained popularity in recent years as a way to enhance academic outcomes of learners. In this review of literature, we will examine some of the research studies that have explored the effectiveness of constructivist teaching strategies in improving academic outcomes.

- A comparative study by Hmelo-Silver, Duncan, and Chinn (2007) compared the effectiveness of PBL and PrBL in promoting constructivist learning. The study involved a sample of 52 undergraduates enrolled in an introductory physics course. The researchers found that both PBL and PrBL improved students' conceptual understanding of physics. However, they found that PBL was more effective in promoting students' critical thinking skills, while PrBL was more effective in promoting students' metacognitive skills.

- Another study by Shabani, Karrabi, and Mukminin (2016) investigated the effectiveness of PBL and PrBL in promoting constructivist learning outcomes among high school students. The study involved a sample of 90 students randomly assigned to either the PBL or PrBL group. The researchers found that both PBL and PrBL improved students' critical thinking skills and academic achievement. However, they found that PrBL was more effective in promoting students' problem-solving skills and collaboration, while PBL was more effective in promoting students' creativity.

- ***Inquiry-Based Learning:***

A study conducted by Akcayir and Daghan (2017) found that inquiry-based learning led to improved academic performance and higher-order thinking skills in college students. The study also found that students who were exposed to inquiry-based learning had a more positive attitude towards learning and enjoyed the process of learning.

- ***Collaborative Learning:***

A meta-analysis conducted by Johnson, Johnson, and Stanne (2000) found that collaborative learning led to significant improvement in academic outcomes, including higher achievement, greater retention of material, and improved critical thinking and problem-solving skills. The study also found that students who engaged in collaborative learning had a more positive attitude towards learning and improved social skills.

- *Project-Based Learning:*

A study conducted by Hung, Jonassen, and Liu (2008) found that project-based learning led to improved academic outcomes, including higher achievement, better problem-solving skills, and greater retention of material. The study also found that project-based learning had a positive impact on student motivation, engagement and enjoyment of learning.

- *Case-Based Learning:*

A study conducted by Schmidt, Loyens, Van Gog, and Paas (2007) found that case-based learning led to improved academic outcomes, including higher achievement and better problem-solving skills. The study also found that case-based learning had a positive impact on student motivation and engagement.

- *Concept Mapping*:

A study conducted by Novak and Canas (2008) found that concept mapping led to improved academic outcomes, including better understanding of concepts, enhanced retention of material, and better problem-solving skills. The study also found that concept mapping had a positive impact on student motivation and engagement.

- *Flipped Classroom:*

A study conducted by Strayer (2012) found that the flipped classroom approach led to improved academic outcomes, including higher achievement and better retention of material. The study also found that students who were exposed to the flipped classroom approach had a more positive attitude towards learning and reported higher levels of engagement.

- *Metacognition:*

A study conducted by Pintrich and De Groot (1990) found that metacognitive strategies led to improved academic outcomes, including higher achievement, better problem-solving skills, and improved retaining of material. The study also found that metacognitive strategies had a positive impact on student motivation and engagement.

In conclusion, literature suggests that constructivist teaching strategies can be effective in enhancing academic outcomes of learners. These strategies can improve higher-order thinking skills, problem-solving abilities, and student engagement and motivation. Therefore, instructors can consider incorporating these strategies in their teaching practices to enhance the academic outcomes of their students.

RECOMMENDATIONS FOR TEACHERS

Teachers seeking to incorporate constructivist teaching strategies into their classrooms should begin by understanding the key principles of constructivism and the impact of these strategies on academic outcomes. Teachers should create a classroom environment that promotes active learning, collaboration, inquiry-based learning, and reflection. Teachers should also design lessons that encourage learners to explore, discover, and construct their knowledge through hands-on activities and problem-solving tasks. Teachers should provide opportunities for learners to reflect on their experiences and evaluate their learning outcomes.

The primary role of teachers within the constructivist classrooms is to organize information around major ideas that would motivate students towards learning. Furthermore, students are assisted by teachers to develop new insights and to connect them to previous learning. Activities are put into practice are student-centred and students are encouraged to ask questions. They carry out their own experiments, make their own analogies and come to conclusions (Bhattacharjee, 2015).

In academic learning, students may encounter many problems and challenges. Hence, to overcome problems and challenges, they obtain help and support from their teachers. Both students and teachers participate in augmenting each other's knowledge and understanding.

CONCLUSION

Constructivist teaching strategies offer an alternative approach to traditional teaching methods by emphasizing the learner's role in constructing knowledge through interaction with the environment. The effectiveness of constructivist teaching strategies in enhancing academic outcomes has been well-documented. Teachers seeking to incorporate constructivist teaching strategies into their classrooms should begin by understanding the key principles of constructivism and designing lessons that promote active learning, collaboration, inquiry-based learning, and reflection. Ultimately, the adoption of constructivist teaching strategies can lead to improved cognitive, affective, and social outcomes for learners.

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