

ACTIVE LEARNING AND TEACHING METHODS IN THE FORMATION OF COGNITIVE COMPETENCES IN STUDENTS

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Abstract: This article describes cognitive competencies in students through active learning and teaching methods. Types of strategies and methods of processing negative competences. These methods are designed to engage students actively in the learning process and facilitate the development of their cognitive abilities.

Key words: cognitive competencies, interactive learning, group projects, critical thinking.

АКТИВНЫЕ МЕТОДЫ ОБУЧЕНИЯ И ПРЕПОДАВАНИЯ В ФОРМИРОВАНИИ ПОЗНАВАТЕЛЬНЫХ КОМПЕТЕНЦИЙ У СТУДЕНТОВ

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Аннотация: В данной статье описываются когнитивные компетенции учащихся посредством активных методов обучения и преподавания. Виды стратегий и методы обработки негативных компетенций. Эти методы призваны активно вовлекать учащихся в процесс обучения и способствовать развитию их познавательных способностей.

Ключевые слова: когнитивные компетенции, интерактивное обучение, групповые проекты, критическое мышление.

The teaching process as a didactic category altered the subjects' working conditions; the teaching process and its expression of the subjects' opinions on the outcomes, which is specific to this system, allows ascertaining the features. This is how higher education is measured.

In the formation of cognitive competences in students, it's essential to employ various active learning and teaching methods. These methods are designed to

engage students actively in the learning process and facilitate the development of their cognitive abilities. Here are some effective strategies:

Interactive Learning: Teacher should encourage interactive learning experiences where students participate actively in discussions, debates, problem-solving activities, and collaborative projects. This approach fosters critical thinking, analytical skills, and knowledge retention. All learning is interactive in the sense that learners interact with content to process, tasks to accomplish, and problems to solve with the goal of constructing improved cognitive, affective, conative, and psychomotor learning outcomes. However, in the context of the sciences of learning and especially machine learning, which are within the scope of this volume, interactive learning can be defined as a process involving some form of digitally enabled reciprocal action between a teacher or designer and a learner. Interactive learning requires access to content, tasks, and problems by at least one human being (a learner) using digital technology (e.g., a computer with Internet access) [2, 112].

Structured Activities: Teacher can assign structured activities such as group projects, case studies, simulations, and role-playing exercises. These activities provide opportunities for students to apply theoretical concepts to real-life situations, enhancing their cognitive skills and decision-making abilities.

Hands-On Learning: Teachers can incorporate hands-on learning experiences such as experiments, laboratory work, field trips, and practical demonstrations. These activities allow students to explore concepts firsthand, deepen their understanding, and develop problem-solving skills.

Problem-Based Learning: Instructor can introduce problem-based learning (PBL) scenarios where students are presented with authentic, complex problems to solve. PBL encourages active inquiry, independent thinking, and collaboration among students, leading to the development of higher-order cognitive skills.

Critical Thinking Exercises: Teacher should integrate critical thinking exercises into the curriculum, including analyzing arguments, evaluating evidence,

and synthesizing information from multiple sources. These exercises help students develop their analytical and reasoning abilities.

Reflection and Self-Assessment: Incorporating opportunities for reflection and self-assessment into the learning process. Encourage students to evaluate their own learning progress, identify areas for improvement, and set goals for further development of their cognitive competences.

Technology Integration: Utilizing educational technologies such as multimedia presentations, online resources, educational apps, and virtual learning environments to enhance students' engagement and interaction with course materials. Technology can provide additional avenues for students to explore content and develop their cognitive skills.

Inquiry-Based Learning: Promoting inquiry-based learning approaches where students formulate questions, conduct research, and seek answers independently. Inquiry-based learning cultivates curiosity, problem-solving abilities, and a deeper understanding of subject matter.

By incorporating these active learning strategies into the teaching and learning process, educators can effectively promote the development of cognitive competences in students, preparing them for success in their academic pursuits and future careers.

Interactive learning is a powerful approach that can significantly contribute to the formation of cognitive competences in students. Here's how encouraging interactive learning experiences can benefit students:

Critical Thinking: Engaging in discussions, debates, and problem-solving activities requires students to analyze information, evaluate arguments, and generate reasoned responses. Through these interactive experiences, students develop critical thinking skills as they consider different perspectives and construct well-reasoned arguments.

Analytical Skills: Interactive learning often involves analyzing complex issues, breaking them down into smaller components, and examining relationships

between various factors. By actively participating in problem-solving activities and collaborative projects, students sharpen their analytical skills and learn how to approach challenges systematically.

Knowledge Retention: Actively participating in interactive learning experiences enhances students' retention of knowledge and understanding of concepts. When students engage in discussions, debates, or hands-on activities, they are more likely to remember the information discussed or applied, as it becomes integrated into their existing knowledge framework through active engagement.

Communication Skills: Interactive learning requires students to express their ideas clearly, listen actively to others, and communicate effectively in various formats. Through discussions and collaborative projects, students hone their verbal and written communication skills, which are essential for success in academic, professional, and personal contexts.

Collaboration and Teamwork: Collaborative projects and group activities foster teamwork and collaboration among students. By working together to solve problems or complete tasks, students learn how to communicate compromise, delegate responsibilities, and leverage each other's strengths, contributing to their overall cognitive development.

Engagement and Motivation: Interactive learning experiences tend to be more engaging and motivating for students compared to passive learning methods. When students are actively involved in discussions or hands-on activities, they feel a sense of ownership over their learning process, leading to increased motivation and enthusiasm for learning.

Overall, interactive learning plays a crucial role in promoting the development of cognitive competences such as critical thinking, analytical skills, and knowledge retention. By encouraging students to participate actively in discussions, debates, problem-solving activities, and collaborative projects,

educators can create dynamic learning environments that empower students to become independent, creative, and lifelong learners.

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