BLOOM'S TAXIONOMY AND DIDACTIC SIGNIFICANCE OF CRITICAL THINKING METHOD IN THE EDUCATIONAL PROCESS

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Abstract. This article explores the use of Bloom's Taxonomy and critical thinking methods in the educational process. Bloom's Taxonomy is a widely used framework that categorizes educational goals and objectives by their complexity and specificity. The cognitive domain of the taxonomy includes six levels of learning, ranging from simple recall to more complex skills such as analysis, synthesis, and evaluation. Critical thinking methods can be applied at all levels of instruction, promoting the development of higher order thinking skills and metacognitive skills such as self-regulated learning and reflection. The didactic significance of critical thinking methods lies in their ability to engage students in complex and meaningful learning experiences, promoting lifelong learning and personal growth. The article emphasizes the importance of incorporating Bloom's Taxonomy and critical thinking methods in education to promote a more meaningful and fulfilling educational experience.

Key words: Bloom's Taxonomy, analysis, evaluation, method, objectives, complexity, knowledge, comprehension, application.

Introduction

Bloom's Taxonomy and Didactic Significance of Critical Thinking Method in the Educational Process

Education is a complex process that aims at the development of various cognitive and non-cognitive skills among learners. In order to achieve this goal, educators and teachers use different methods and approaches.[1] One of the most effective methods that can be used to develop cognitive skills is the Bloom's taxonomy of educational objectives. The purpose of this article is to examine the Bloom's taxonomy and the didactic significance of critical thinking method in the educational process.[2]

 What is Bloom's Taxonomy?

Bloom's taxonomy is a hierarchical framework created in 1956 by Benjamin Bloom and his colleagues. It was designed to categorize educational goals according

to their level of cognitive complexity and specificity to help teachers and educators develop appropriate assessment tools and educational materials.[3] The framework consists of six levels or domains, including knowledge, comprehension, application, analysis, synthesis, and evaluation. Each level builds on the previous level and requires a greater level of cognitive complexity.[4]

The Six Levels of Bloom's Taxonomy

1. Knowledge

The first level of Bloom's taxonomy is knowledge. At this level, learners are required to recall previously learned information such as facts, details, and specific terms and concepts.

2. Comprehension

The second level of Bloom's taxonomy is comprehension. At this level, learners use their knowledge to interpret and understand information. They are expected to explain, interpret, describe, and summarize information in their own words.

3. Application

The third level of Bloom's taxonomy is application. At this level, learners use their knowledge and understanding to apply information in new contexts or situations. For example, they might use a formula to solve a math problem or use a concept they learned in a previous lesson to solve a real-world problem.

4. Analysis

The fourth level of Bloom's taxonomy is analysis. At this level, learners break down information into its component parts and examine how they are related. They might compare and contrast information, identify patterns, or analyze cause-and-effect relationships.

5. Synthesis

The fifth level of Bloom's taxonomy is synthesis. At this level, learners create something new by combining different ideas or concepts. For example, they might create a new hypothesis based on their analysis of existing data or design an experiment to test a theory.

6. Evaluation

The sixth and final level of Bloom's taxonomy is evaluation. At this level, learners make judgments about the value or quality of information. They might evaluate the strengths and weaknesses of a theory or argument, or make a decision based on a set of criteria.[5]

Bloom's Taxonomy is a widely used framework in education that helps teachers and students to develop critical thinking skills. The framework is used to categorize educational goals and objectives by levels of complexity and specificity. The use of

Bloom's Taxonomy has become a standard for teachers in developing lesson plans and learning objectives, and is an important tool in the development of the didactic significance of critical thinking methods in the educational process.[6]

The framework was developed in the 1950s by a group of educators led by Benjamin Bloom. The original framework was comprised of three domains: cognitive, affective, and psychomotor. The cognitive domain, which is the most commonly used, includes six levels of learning, ranging from simple recall of information to more complex levels of analysis, synthesis, and evaluation.[7] These levels are: knowledge, comprehension, application, analysis, synthesis, and evaluation.

Each level of the cognitive domain is associated with specific verbs that describe the expected behavior, knowledge, or skills that a student should demonstrate in order to achieve that level. For example, at the knowledge level, students are expected to demonstrate an understanding of basic concepts and terms, such as defining a key term in a discipline. At the evaluation level, students are expected to use critical thinking and judgment to evaluate the value or quality of something, such as critiquing a research paper or evaluating a political policy.

The didactic significance of critical thinking methods lies in their ability to engage students in complex and meaningful learning experiences that promote the development of higher order thinking skills. These skills are essential for success in today's rapidly changing and complex world. Critical thinking helps students to analyze and evaluate information, clarify their thinking, make informed decisions, and solve problems.

The application of Bloom's Taxonomy and critical thinking strategies is especially important in the development of project-based learning activities. Project-based learning is an instructional approach that involves students in designing and completing a project or investigation that is relevant and meaningful to their lives. Project-based learning activities can be designed to incorporate Bloom's Taxonomy levels and critical thinking skills by engaging students in problem-solving, analysis, synthesis, and evaluation of information.[8]

For example, a project-based learning activity that focuses on environmental issues could involve students in researching and analyzing the impact of human activities on the environment. Students could be asked to identify the causes and effects of various environmental issues, such as pollution, climate change, and the depletion of natural resources. They could then be asked to develop and present a plan for addressing one or more environmental issues, using critical thinking to evaluate the advantages and disadvantages of various solutions.

Incorporating Bloom's Taxonomy and critical thinking strategies in classroom instruction can also help students to develop important metacognitive skills, such as

self-regulated learning, reflection, and self-assessment. These skills are important for promoting lifelong learning and personal growth, both in and outside of the classroom.

Critical thinking methods can also be applied to assessment and evaluation. Instead of relying on rote memorization and recall, assessments can be designed to measure students' ability to apply critical thinking skills to real-world problems and situations. This type of assessment is more meaningful and engaging for students, as they can see the relevance and practical applications of what they are learning.

Critical Thinking and Bloom's Taxonomy

Critical thinking is a cognitive process that involves analyzing, evaluating, and making judgments about information. It is an important cognitive skill that is essential for success in both academic and non-academic settings. Critical thinking is highly valued by employers and is considered a crucial skill for success in the 21st century.

The didactic significance of critical thinking method in the educational process lies in its ability to promote higher-order thinking skills by utilizing Bloom's taxonomy. The application of critical thinking helps learners to analyze, synthesize, and evaluate information, which is essential in developing a deeper and more comprehensive understanding of a subject matter.[9]

The use of critical thinking in the educational process can lead to the development of several skills, including the ability to question assumptions, make logical connections, and draw conclusions based on evidence. It also helps learners to identify and evaluate arguments, identify biases, and make sound judgments.

The Benefits of Incorporating Bloom's Taxonomy and Critical Thinking in Educational Practice

Conclusion. Bloom's taxonomy and critical thinking method are valuable tools that can be used to promote higher-order thinking skills among learners. By utilizing these tools, teachers can help learners to develop important cognitive skills that are essential for academic and professional success. Incorporating critical thinking in the educational process results in learners being properly equipped with diverse skills and exposure to a variety of learning experiences. Bloom's Taxonomy and critical thinking methods are powerful tools in the educational process. They provide a framework for organizing and designing instruction that is challenging, relevant, and engaging for students. By incorporating critical thinking skills at all levels of instruction, teachers can help students to develop the metacognitive skills and habits of mind that are essential for success in the 21st century. Moreover, it is necessary for educational institutions to pay more attention to develop educational strategies that incorporate Bloom's Taxonomy and critical thinking methods in their teaching and learning process to promote a more meaningful and fulfilling educational experience.

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