

SEQUENCE OF STAGES OF FORMATION OF CRITICAL THINKING IN CHILDREN OF PRIMARY SCHOOL AGE.

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Abstract The article describes the sequence of formation of critical thinking in children of primary school age. In particular, based on Piaget's stages of cognitive development, aspects that should be paid attention to in the educational process are analyzed. Recommendations are also given for the use of educational strategies in critical thinking.

Key words: Piaget's stages of cognitive development, critical thinking, cognitive, development, educational strategies, primary school children, sequence of stages, development of critical thinking, sensorimotor stage.

Introduction

Critical thinking is a complex cognitive process that involves evaluating information, making judgments, and arriving at conclusions. It is a skill that develops over time and is influenced by various factors, including cognitive development, educational strategies, and environmental influences.

Critical thinking is a crucial skill for students in Uzbekistan, as it enables them to analyze information, make judgments, and arrive at conclusions. The education system in Uzbekistan should emphasize the cultivation of critical thinking skills rather than rote memorization of facts.

Developing critical thinking skills in Uzbekistan's education system is not an easy task, and it cannot be done and forgotten at a certain age. The main aim of education is not just to give students useful information but to teach them thinking skills, to make decisions and choices (Isakov, 2024). To achieve this goal, pedagogical technologies and interactive methods that guarantee the effectiveness of the educational process should be used.

One of the urgent problems in Uzbekistan's education system is ensuring the full implementation of modernized educational standards. This includes developing students' critical thinking skills, which is a complex process that requires a deep understanding of the subject matter and the ability to analyze and evaluate information.

Enhancing critical thinking in the curriculum is a key aspect of improving the quality and efficiency of education in Uzbekistan (ABduvahobovich, 2022). This can be achieved by using pedagogical technologies, interactive methods, and modernized educational standards. By developing students' critical thinking skills, the pedagogical process can be developed to make them loyal to their country and people, independent and creative thinkers, conscientious and willing people.

The current state of critical thinking education in Uzbekistan is undergoing significant transformation towards emphasizing the cultivation of critical thinking skills over rote memorization of facts (Akbarova, 2023). The Uzbekistan education system is striving to produce graduates equipped with critical thinking, problem-solving, and practical skills essential for success in the 21st century economy (USAID, 2021). Efforts are being made to develop pedagogical technologies and interactive methods that enhance the effectiveness of the educational process by focusing on students' critical thinking skills (A'zamjonov et al., 2023). The Ministry of Public Education in Uzbekistan, in partnership with organizations like the U.S. Agency for International Development (USAID), is actively working on implementing new educational standards and curricula that promote critical thinking and practical skill development among students. These initiatives aim to create a quality education system that fosters independent and creative thinkers, preparing students to meet the demands of a rapidly evolving world.

Piaget's Stages of Cognitive Development

Jean Piaget, a renowned psychologist, proposed a theory of cognitive development that includes four stages: sensorimotor, preoperational, concrete operational, and formal operational. These stages can provide a framework for understanding the development of critical thinking in children:

-Sensorimotor Stage (Birth to 2 Years): During this stage, children learn through experience and observation. They begin to develop a sense of self and understand basic cause-and-effect relationships.

-Preoperational Stage (Ages 2 to 7): In this stage, children begin to think symbolically and learn to use language. They also develop the ability to imagine and pretend, but their thinking is still concrete and not yet logical.

-Concrete Operational Stage (Ages 7 to 11): During this stage, children become more logical and organized in their thinking. They can think about concrete situations and use inductive logic to make generalizations. However, their thinking remains concrete, and they may struggle with abstract and hypothetical concepts.

-Formal Operational Stage (Ages 12 and Up): In this stage, children begin to think abstractly and reason about philosophical, ethical, social, and political issues that require theoretical and abstract reasoning. They can use deductive logic, understanding abstract ideas and situations.

Critical Thinking in Primary School Children.

Critical thinking is a fundamental skill that children should develop from an early age to navigate the complexities of the modern world. In primary school, children aged 5 to 9 are at a crucial stage where they begin to lay the foundation for critical thinking.

Critical thinking is more than just logical thinking; it involves active, persistent, and careful examination of beliefs and knowledge. Children who develop critical thinking skills can analyze information rationally, solve problems effectively, make informed decisions, and set goals for themselves. In today's rapidly changing society with unlimited access to information, children need to go beyond memorization and learn to analyze, compare, evaluate, and draw conclusions.

Parents play a crucial role in developing children's critical thinking skills by encouraging curiosity, stimulating discussions, challenging them to think independently, and exposing them to diverse situations.

In schools, educators can integrate critical thinking into the curriculum across subjects like language arts, math, science, and social studies to provide students with opportunities to apply these skills in various contexts.

Nurturing critical thinking in primary school children is essential for their academic success and personal development. By incorporating strategies that encourage open-ended questions, promote problem-solving activities, foster collaborative learning, and introduce decision-making exercises, parents and educators can empower children to become independent thinkers and problem solvers. Embracing the power of critical thinking from an early age sets children on a path towards lifelong learning and success.

Educational Strategies to Promote Critical Thinking

To promote critical thinking in primary school children, educators can use various strategies:

1. **Asking questions:** Encourage children to ask questions and challenge their own assumptions.
2. **Decision-making:** Involve children in decision-making processes to help them develop critical thinking skills.
3. **Working in groups:** Collaborative learning can help children learn to evaluate different perspectives and arguments.
4. **Incorporating different points of view:** Expose children to different perspectives and encourage them to consider multiple viewpoints.
5. **Connecting learning to real-life experiences:** Relate learning to real-life experiences to help children understand the relevance of what they are learning.

Some examples of critical thinking activities for primary school children include:

Creating Art: Encourage children to express their thoughts through artistic outlets like drawing pictures or composing music, fostering critical thinking and creativity.

Solving Puzzles Together: Engage children in puzzle-solving activities such as Monopoly, tic-tac-toe, jigsaw puzzles, and more to build their critical thinking skills.

Teaching Hypothesis Creation: Guide children in creating hypotheses by questioning them about stories they read, encouraging them to predict outcomes and analyze characters.

Playing with Building Blocks: Building blocks and LEGOs are excellent tools for promoting critical thinking as children use them to bring their ideas to life, stimulating their imagination and problem-solving skills.

Real Problems, Pretend Play: Encourage children to engage in pretend play where they tackle real-world problems like world hunger or global warming, prompting them to think of solutions and understand real challenges faced by people.

By incorporating these activities into their daily interactions with children, parents can effectively promote the development of critical thinking skills in primary school children, preparing them for success in academics and beyond.

Conclusion

Critical thinking is a complex cognitive process that develops over time. Piaget's stages of cognitive development provide a framework for understanding the development of critical thinking in children. Educational strategies, such as asking questions, decision-making, working

in groups, incorporating different points of view, and connecting learning to real-life experiences, can help promote critical thinking in primary school children.

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