



STUDENTS HAVE DIFFICULTY SOLVING PROBLEMS DUE TO COGNITIVE DISSONANCE

Umarov N. N.

Independent Researcher Navoi State University

ORCID: 0009-0003-4029-2925

nodirbek4848umar@gmail.com

Abstract

This article provides information on cognitive dissonance in students and the difficulties in solving problems caused by it, as well as pedagogical technologies used to overcome them.

Keywords: Cognitive dissonance, self-concept, critical thinking technology, constructive dialogue technology, cognitive modeling technology, reflexive learning technology.

Introduction

One of the main goals of modern education is to form in students the skills to correctly approach problem situations, find solutions and make independent decisions. However, in practice, in many cases, students show weakness or unfamiliarity with problem situations. In the context of life, not problems that can be solved, but only theoretical tasks prevail. The student gets confused in new, complex or contradictory situations and refuses to solve the problem. The internal fear of “if I make a mistake, they will laugh at me” prevents the analysis of the problem. Modern pedagogy encourages students to think independently, compare different sources, and justify their point of view. In this process, a contradiction (dissonance) arises between the students’ previous knowledge, beliefs and new information. If this situation is not managed correctly, students experience: misunderstanding, lack of self-confidence, and rejection of knowledge.

Therefore, pedagogical approaches to identifying, managing, and eliminating cognitive dissonance have become an extremely relevant issue in modern education. Cognitive dissonance in students is not a negative situation, but rather



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an opportunity for growth and development, if it is managed through the right pedagogical technologies.

Literature review

The issue of cognitive dissonance has been studied by international scientists such as Leon Festinger, Elliot Aronson, Joel Cooper, Carol Tavris, Jack Brehm, and local scientists such as Aziz Kutlimuratov and Raima Shirinova. In his work “A Theory of Cognitive Dissonance”, Leon Festinger touched upon issues such as an introduction to the theory of cognitive dissonance, the consequences of decisions, the effect of forced compliance, and the role of social support. Elliot Aronson, in his work “The Social Animal”, emphasized that dissonance is not only between knowledge, but also related to how a person perceives himself (self-concept). Self-concept is a general understanding of how a person perceives, imagines, and evaluates himself. That is, it is a set of answers given consciously or unconsciously to the questions “Who am I?”, “What am I like?”, “What am I capable of?” Joel Cooper in his work “Cognitive Dissonance: 50 Years of a Classic Theory” analyzes the 50-year development of dissonance theory and enriches it with new research. Aziz Kutlimuratov in his scientific article “Cognitive Dissonance: The Role in Human Decisions” analyzed the causes of cognitive dissonance, its shortcomings and ways to reduce it. Raima Shirinova’s article “The Problem of Cognitive Dissonance in Translation and Ways to Eliminate It” discusses the phenomenon of cognitive dissonance in literary translation, its role and significance in study and scientific research.

Main part

Cognitive dissonance is an uncomfortable psychological state that occurs when students have two or more conflicting knowledge, beliefs, or views in their minds, and in order to reduce this discomfort, they try to rework their thoughts, behaviors, or information. Difficulties in solving problems caused by cognitive dissonance in students are psychological obstacles they encounter in making a decision or solving a problem due to psychological discomfort arising from the imbalance between their existing knowledge, beliefs, or experiences and new information. For example: a person who smokes cigarettes knows that “this is bad



for my health,” but continues to smoke. According to Festinger, people use the following psychological defenses to reduce dissonance:

- Justifying their behavior (everyone smokes, nothing will happen).
- Rethinking the decision (this product is really good).
- Searching for new information (cigarettes also have benefits).

Cognitive dissonance has a strong impact on human decisions because it can distort logical thinking and lead to irrational behavior.

How does cognitive dissonance arise in students?

First, when new knowledge contradicts what they previously knew. For example, if students previously thought that the earth was flat, but in geography they learned that the earth is spherical, dissonance arises.

Second, when thoughts and real experience do not match. For example, “I understood this topic well, but I got a low grade on the test,” an internal conflict arises.

Third, when the teacher’s opinion contradicts the student’s view.

Fourth, evaluation or peer pressure. For example, a student thinks that his or her opinion is correct, but if his or her friends or teacher say otherwise, he or she becomes insecure.

Cognitive dissonance creates psychological pressure or internal conflict in the student. In this case, he has difficulty distinguishing between what is right and what is wrong. As a result, he may not understand the problem, choose the wrong solution, or “freeze” between ideas. The state of clinging to previous beliefs and views in students can cause them to become so attached to previously learned or acquired ideas that they reject new (but correct) information.

To eliminate cognitive dissonance or use it constructively, it is very important to use special pedagogical technologies. These technologies guide students to find a balance between opposing views, independently analyze and effectively solve problems. For example: Technology for developing critical thinking (teaches not to deny dissonance, but to analyze it and be open to different points of view). Constructive dialogue technology (Through discussion, students see the diversity of opinions and reconsider their position). Cognitive modeling technology (The teacher or an advanced student shows how he solves the problem, thereby teaching strategies for understanding and eliminating dissonance). Reflective



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learning technology encourages students to reconsider and analyze their own opinions. Also, through debates, students discuss different points of view from different angles, that is, from the position of affirmation and denial, and ultimately dissonances are resolved in a positive way.

Conclusion and Recommendations

Cognitive dissonance is an obstacle to problem solving because it disrupts the student's clarity of thinking, negatively affects their self-confidence, and hinders critical analysis. However, this situation can be turned into growth through properly managed educational approaches. Teaching students to analyze their thoughts also forms the skill of resolving dissonance. By managing dissonance, it is possible to act logically in complex situations without losing their mental balance. This skill is also useful in solving life problems. A student who understands cognitive dissonance becomes tolerant of other opinions and can compare his or her own thoughts with others.

Pedagogical technologies that eliminate cognitive dissonance activate the student's thinking, increase self-confidence, prepare for independent problem solving, and lead from superficial memorization to deep understanding. It is very important to use special pedagogical technologies to eliminate cognitive dissonance or use it constructively. These technologies guide students to find a balance between opposing views, independently analyze and effectively solve problems.

- Do not be afraid of dissonance - it is an opportunity for growth.
- Teach students to express their opinions without fear of mistakes.
- Explain each new information by linking it with previous knowledge.
- Actively use questions like "Why did you think that way?"
- Present different points of view in the lesson, the student should have a choice.

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