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MECHANISMS AND TECHNIQUES OF FORMING SOCIO-CULTURAL VALUES IN ENGINEERING STUDENTS

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The study includes the analysis of educational mechanisms and techniques applied within engineering study programs that contribute to the significant training of specialists anchored in sociocultural values. Most authors in the studies conducted do not focus on a specific technique or strategy, but on the use of those that emphasize the valorization of sociocultural values. The ability to actively apply knowledge in a practical context is becoming increasingly important. Thus, for the design of learning environments, it is necessary to give special emphasis to active tasks, interactive learning in a rich, contextualized and open learning environment.

Key words: strategy, mechanism educational, sociocultural values, university education, students.

INTRODUCTION

The review of the specialized literature highlighted the fact that, although learning is an essential condition, it does not automatically ensure change. Active, student-centered learning proves to be more effective than passive learning, while the teacher-centered approach [1-8] tends to be encyclopedic. The method is multifunctional, having the ability to contribute simultaneously or successively to the achievement of several educational objectives. The choice of the teaching method by the teacher is a complex decision. The directions of professional training of students in the technical field are described in the European Qualifications Framework. The Education Code promotes the initiative of aligning values with the values of the European Union and with the general human values that ensure professional affirmation. The objectives of higher education institutions refer to: training students for a life of active citizens in a democratic society; training students for a career and ensuring personal development; creating and preserving sustainable knowledge; stimulating research and innovation.

RESULTS AND DISCUSSION

University educational strategies for the formation of sociocultural values include different approaches, each with a specific implementation mechanism (table 1.):

- Heuristic strategies: These focus on discovering the cause-effect relationship in didactic actions, such as creating a unique visual identity (logo, promotional materials) and formulating reasons for social and cultural values.
- Research-oriented strategies: They involve methods such as case study and problem-based learning, aiming to promote sociocultural values and professional self-actualization of students.



- Expository strategies: They focus on describing emotional experiences, contributing to the expression of self-esteem and respect for others.
- Illustrative-explanatory strategies: These strategies are used to discover the most effective methods of explanation and persuasion, having as a mechanism the knowledge of artistic works and the promotion of culture.
- Problematized strategies: Focus on identifying current problems and transferring professional efficiency values, with the aim of demonstrating career efficiency and professional comfort”.

Table 1.

Mechanisms of sociocultural value formation revealed through educational training and promotion strategies for engineering students:

Mechanisms of the formation of sociocultural values obtained through the application of educational training and promotion strategies	
The mechanism of motivating students for the formation of sociocultural values	<ul style="list-style-type: none">• conviction about the need for permanent professional development;• awareness of the level of professional authority.
The mechanism of professional self-training	<ul style="list-style-type: none">• conviction about the opportunity of professional training;• conviction about the desire of the teaching staff to participate in the training of students.
The mechanism of expressing self-respect/for others	<ul style="list-style-type: none">• conviction about the importance of self-esteem in professional affirmation.
The mechanism of channelling emotional energy for constructive communication	<ul style="list-style-type: none">• awareness of its professional efficiency in professional communication.
The mechanism of demonstrating professional efficiency and a state of comfort	<ul style="list-style-type: none">• attitude towards sociocultural values.• awareness of the degree of autonomy and freedom in making professional decisions.

Mechanisms for the formation of sociocultural values in students refer to the processes and strategies through which fundamental values related to culture, ethics, respect, diversity and social responsibility are integrated into their education, especially within engineering study programs. These mechanisms are essential to ensure the formation of an educational framework that not only prepares students in their field of specialization, but also contributes to their development as responsible citizens, able to appreciate and respect diversity and social norms.

Mechanisms for the formation of sociocultural values in engineering students:

- The mechanism of motivating students for the formation of sociocultural values: This mechanism involves creating an educational context in which students



are aware of the importance of the continuous development of sociocultural values, which are essential both for their professional careers and for their integration into a multicultural society. Their motivation is done by clarifying the link between professional development and the formation of ethical and responsible behavior. By involving students in extracurricular activities that promote social responsibility and awareness of diversity can contribute to strengthening this mechanism.

- The mechanism of professional self-training: Professional self-training refers to the process by which students develop their own skills and values, integrating the knowledge and attitudes learned in the academic environment with personal experiences. It also involves an awareness of the importance of self-discipline and the desire to evolve professionally through continued learning throughout life. Participation in research projects or internships in which students are encouraged to explore innovative and socially responsible solutions can strengthen this mechanism.

- The mechanism of expressing respect for oneself and for others: The formation of this mechanism is essential for the development of an appropriate professional attitude. Self-respect is closely related to self-knowledge and confidence in one's own abilities, while respect for others reflects the ability to accept and appreciate diversity. These values are fundamental for effective collaboration in diverse teams. Group activities that encourage open dialogue, active listening, and valuing diversity of opinions and experiences are crucial in the development of this mechanism.

- The mechanism of channeling emotional energy for constructive communication: This mechanism refers to the ability of students to effectively use emotions in professional communication, to understand the emotional impact of interactions, and to respond constructively in conflict situations. It is essential for building harmonious professional relationships and promoting an organizational culture based on mutual respect and understanding. Participating in simulations or role-playing games that mimic complex professional scenarios helps students learn to manage emotions and apply effective communication techniques.

- The mechanism of demonstrating professional effectiveness and comfort: This mechanism refers to the integration of sociocultural values into the professional setting, in which students are encouraged to demonstrate their skills and abilities in a way that reflects not only technical expertise, but also respect for ethical and social values. Comfort and autonomy in making professional decisions are essential for responsible professional practice. Involving students in real design or engineering projects, where they are encouraged to apply ethical principles and take into account the social and cultural impact of their solutions, can support the development of this mechanism.

CONCLUSIONS

These mechanisms contribute to the formation of a responsible and ethical attitude among students, preparing them not only for a successful professional career, but also for a life as active, respectful and involved citizens in society. In this way, education is not limited to the training of technical skills, but also includes the development of students' personalities in a broader sociocultural context.



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ДАНІЛА В.

МЕХАНІЗМИ ТА ТЕХНІКА ФОРМУВАННЯ СОЦІОКУЛЬТУРНИХ ЦІННІСНОСТЕЙ У СТУДЕНТІВ ІНЖЕНЕРНОГО ФАХУ

Дослідження включає в себе аналіз освітніх механізмів і методів, що застосовуються в рамках інженерних навчальних програм, які сприяють значній підготовці фахівців, які базуються на соціокультурних цінностях. Більшість авторів у проведених дослідженнях зосереджуються не на конкретній техніці чи стратегії, а на використанні тих, які наголошують на валоризації соціокультурних цінностей. Уміння активно застосовувати знання в практичному контексті стає все більш важливим. Таким чином, для проєктування навчальних середовищ необхідно приділяти особливу увагу активним завданням, інтерактивному навчанню в багатому, контекстуальному та відкритому навчальному середовищі.

Ключові слова: стратегія, освітній механізм, соціокультурні цінності, університетська освіта, студентство.