INTERDISCIPLINARY APPROACH: DEVELOPING RESEARCH SKILLS

ABORDAREA INTERDISCIPLINARĂ: DEZVOLTAREA ABILITĂȚILOR DE CERCETARE

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An interdisciplinary approach is an important part of the education system modernization and creates a precedent for disputes about its effectiveness. It is difficult to deny its positive features, which allow modern teachers to learn to work in a team with their colleagues and help students to explore the world beyond their field. The traditional, disciplinary method used in schools for decades does not allow the new generation of students to fully develop, driving their thinking method into the framework of a specific subject, while today the emphasis is on a competence approach.

So, let's consider and answer to this important question: Is it possible to help students to develop research competence by applying an interdisciplinary method during the learning process? The interdisciplinary approach has many positive qualities, such as expanding the learning horizons, breaking down the barriers between disciplines, understanding the process of problem solving outside the context of a certain subject, leaving the comfort zone, teamwork, but it is impossible not to touch on the negative aspects of this method - the difficulties experienced by teachers in trying to integrate this method, a longer and more complex process of compiling didactic projects. As we can see, the main disadvantages fall on the teacher, not the student [3].

Today, both modern employers and universities prefer young people who are able to effectively solve emerging problems, despite the context of the situation. Looking at the problem from different perspectives, solving the problem using methods that may not be characteristic of a certain area, teamwork, creativity and innovation - all these features and other key details are important qualities characterizing a modern young person [3].

The development of research competence can be considered one of the most important problems faced by teachers of the twenty-first century. You may ask: Why? The new generation has become a challenge for the education system - the concentration problem, due to the active digitalization and constant consumption of information through fast flow, a request for new, creative, innovative solutions and methods of presenting information. Nowadays' students are not ready to perceive information blindly, not understanding why they may need this knowledge, where it will be possible to apply it in the future.

Let us consider specific examples of methods to increase the level of motivation and interest in the research process among students. Thinking about opportunities for collaboration, educators rarely turn to colleagues who teach fine arts, despite the fact that social and cultural aspects remain relevant for students in any context and help to better study the proposed topic. In conditions where the read work should be illustrated, processed graphically in a digital editor and turned into a printed book, the student will be motivated to study the text most thoroughly, highlight important details and moments for displaying the real picture in illustrations, study the types of illustrations, the capabilities of graphic editors, learn and study the subtleties of preparing the processed image for printing. The least obvious team would be specialists in mathematics and artistic education. For example, in the process of working on the "Portrait Proportions" project, owing to the cooperation between the specialists of the disciplines mentioned above, students could most accurately study the concept of proportion within the framework of mathematics lessons and apply the knowledge gained in the process of building a portrait. The presence of a goal and a specific end result motivated students to learn more about the topic of proportions. Here we can cite as an example a project that was able to combine such subjects as music education, fine arts education, English language and computer science. Students were asked to implement animation based on the text learned on English lessons. In addition to in-depth study of the text, students were able to practice new techniques for the animation development (stop-motion), select and record music for background accompaniment (team members who can play musical instruments), learn about the capabilities of programs that allow to edit the final product.

Project activities in groups and their impact on the research competence development are also the subject of controversy among many researchers. For example, in the book Innovations in Interdisciplinary Teaching [2], Richards D., argues that the projects that the team works on cannot always be successful and achieve the set tasks due to disagreements between the members of the group. This can be caused by the fact that everyone sees the end result differently. Working in a group can often be associated with the following problems: conflict situations arising between group members, a low level of cooperation, an illogical distribution of roles, etc. But there are authors who claim that the group method has many advantages, one of them being that it helps students to develop research and other competencies [4]. This method remains quite in demand among teachers and students.

Next we will consider its advantages. Interesting views on this issue can be found in "Young Adolescent Voices" by Susan J. Boyer and P. Bishop, where we learn about the results of a survey that showed that students are positive about this method and note that working as a team helped them to better master the material and contributed to personal growth, the development of tolerance towards colleagues (support for weak group members), leadership qualities, the development of long-term cooperation, and the creation of a democratic environment for learning. This statement is supported by the practice of "Young Adolescent Voices" authors, who joined a team of students of different ages to work on a multidisciplinary project. The eighth-grade representative commented

on this experience: “We are a team of sixth, seventh and eighth-grade students, which is very important because younger group members can get help from senior colleagues and eighth-grade students can take the lead. We stick together and work together” [1, p.6]. Another student, whose experience has been described in this paper, notes that the interdisciplinary approach helps to see the result of the work over the entire trimester, which fits in the portfolio, which motivates her to develop further [1, p.9]. Many students note that the interdisciplinary approach has helped them in the development of a communicative skill [1, p.9].

Interdisciplinary training programs do indeed require cooperation and participation. Working in such conditions may seem tedious, but all existing positive aspects should motivate us, teachers, to use this method as often as possible to improve the quality of education, increase the level of students’ motivation and develop their competencies that are so necessary to study at the university and at the future place of work.

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