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THE ROLE OF MOTIVATION IN DEVELOPING RESEARCH SKILLS: AN INTERDISCIPLINARY PERSPECTIVE

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This article explores the development of research skills in students within the context of an interdisciplinary approach. Research skills refer to students' ability to conduct research, analyze information, and solve complex problems. The interdisciplinary approach integrates multiple disciplines into the learning process, providing students with a broader perspective and fertile ground for the development of research skills. Motivation plays an essential role in this process, and the relevance of the subject to students' individual interests can be a significant source of motivation. Teachers, as mentors, have an impact on students' motivation by providing guidance and positive feedback. Effective time management and the promotion of reflection on research experiences complement this framework for the development of research skills. Through the interdisciplinary approach and active involvement of teachers, students become capable of tackling complex issues, exploring the world with curiosity, and developing essential skills for their future success.

Keywords: *research skills, interdisciplinary approach, subject relevance, mentoring teacher, time management, reflection, development, students, learning process.*

MOTIVAȚIA ȘI COMPETENȚELE INVESTIGAȚIONALE: O PERSPECTIVĂ INTERDISCIPLINARĂ

În articol se analizează dezvoltarea competenței investigaționale la elevi în cadrul unei abordări interdisciplinare. Competența investigațională se referă la capacitatea elevilor de a efectua cercetări, analiza informații și rezolva probleme complexe. Abordarea interdisciplinară integrează mai multe discipline în procesul de învățare, oferind astfel o perspectivă mai amplă și un teren fertil pentru dezvoltarea acestei competențe. Motivația joacă un rol central în acest proces, iar relevanța subiectului pentru interesele individuale ale elevilor poate reprezenta o sursă puternică de motivație. Profesorii au un impact semnificativ în această ecuație, fiind mentori și furnizând îndrumare și feedback pozitiv pentru elevi. Gestionarea eficientă a timpului și promovarea reflecției asupra experiențelor de cercetare completează acest cadru de dezvoltare a competenței investigaționale. Prin abordarea interdisciplinară și angajamentul activ al profesorilor, elevii devin capabili să abordeze probleme complexe, să exploreze cu curiozitate și să dezvolte abilități esențiale pentru succesul lor viitor.

Cuvinte-cheie: *competențe investigationale, abordare interdisciplinară, motivație, relevanța subiectului, profesor mentor, gestionarea timpului, reflecție, dezvoltare, elevi, proces de învățare.*

Introduction

Tackling the issue of student motivation in enhancing investigatory competency represents a key concern within the contemporary educational framework. Investigative (research) competence requires active involvement of students in research, analysis, and deep understanding of study subjects, making motivation an important component of this process. The interdisciplinary approach in education is the subject of differing opinions, attracting both supporters and critics. Supporters believe that this method can motivate students to engage in learning school subjects, while critics argue that the interdisciplinary approach only creates an illusion of motivation [6]. Given this controversy, the question arises regarding the relationship between the interdisciplinary approach and the development of students' investigative competencies.

Implementing the interdisciplinary approach involves using multiple sources of different information, requiring students to solve numerous smaller problems before addressing the central question. Solving these problems will trigger emotional reactions that will prompt the student to choose between achieving smaller goals (in this situation, their activity will be fragmented, less cohesive, and dispersed) and tackling broader issues (activity will become more focused and oriented towards larger objectives) [2].

Student motivation can be considered the engine that fuels the learning process. In this context, the importance of motivation is particularly significant, as it influences how students engage in research activities, assimilate knowledge, and develop the necessary skills to become efficient investigators [5]. We will try to examine some key aspects that underline the relevance of motivation in developing research competence.

1. ***Energy and perspective.*** Motivation provides students with the necessary energy to actively engage in the research process. When motivated, they approach tasks with enthusiasm and dedication, which increases the chances of success in investigations.

2. ***Desire to explore.*** Motivation fuels the desire to explore the world around them. Motivated students are more likely to seek answers to questions, investigate phenomens, and engage in autonomous learning activities.

3. ***Data collection and analysis.*** When students are motivated, they become more attentive to details and more efficient in collecting and analyzing data. Motivation drives them to dedicate their time and effort to deeply understand the subject of investigation.

4. ***Resilience to obstacles.*** Motivation helps students overcome obstacles and face challenges that may arise in the research process. They are less likely to give up in the face of difficulties.

5. ***Autonomy and responsibility.*** Motivation promotes learning autonomy. Motivated students are more willing to take responsibility for their own research process, which develops self-regulation and planning skills.

6. ***Sustainable learning.*** Motivated students tend to assimilate knowledge in a deeper and more durable manner. This means that the investigative competence developed in the context of motivation is more likely to be transferred and applied in other areas and situations.

Personal relevance is an important aspect in the equation of student motivation in developing investigative competence. This factor is closely linked to how the subject of study connects to the individual interests and aspirations of the students. The interdisciplinary approach proves to be a valuable tool in developing this crucial aspect of motivation, as it allows students to explore and discover their personal passions within the context of developing investigative competence. The interdisciplinary approach introduces themes and concepts that can be directly related to the individual interests of students. When students see that study subjects are relevant to what they are passionate about, they are more motivated to engage and investigate in depth. Through the interdisciplinary approach, students can explore issues and situations that have real-world relevance. This realistic context makes research activities more meaningful and purposeful, which enhances motivation to achieve results. The interdisciplinary approach gives students the freedom to explore their personal passions within the research activities. This encourages them to become curious investigators and seek answers to the questions that fascinate them the most. When students can see how investigative competence can contribute to achieving their personal goals and aspirations, they become more motivated to engage in the learning process. They perceive investigative competence as a powerful tool to pursue their dreams and make a difference in the world.

The development and implementation of research activities within the educational process require a careful and strategic approach to ensure they are truly beneficial for students. One of the key aspects in this regard is ensuring that research activities are thoughtfully designed to represent challenges that are appropriate to the students' development level. This involves several essential elements:

1. ***Complexity Level:*** Research activities must be tailored to the developmental level and cognitive maturity of students. It's important that challenges are not too difficult, which could lead to frustration, or too easy, which could generate boredom. By carefully assessing the abilities and knowledge of students, the optimal level of complexity can be established.

2. ***Relevance and Context:*** To spark interest and motivation in students, research activities must be perceived as relevant to their lives. This may involve linking themes to current topics, personal experiences, or individual interests. When students perceive that what they are learning has relevance for their future development, they are more willing to actively engage in the research process.

3. ***Clear Objectives and Expectations:*** Students must clearly understand the objectives of research activities and the expectations regarding what they need to achieve. Objectives should be well-defined and measurable, so students know exactly what is expected of them. This helps them direct their efforts appropriately.

4. ***Constructive Feedback:*** An important part of designing research activities is providing constant and constructive feedback to students. This feedback helps them understand where to direct their efforts and correct any potential errors or misunderstandings.

5. ***Flexibility:*** Designing research activities must also account for the individual variability of students. Students have different learning paces, and some may require more support or additional time to achieve the set objectives. Flexibility in approach can ensure that all students benefit from challenges that are appropriate to their development level.

The role of the teacher in developing students' investigative competence. Teachers are not just transmitters of knowledge but also mentors and guides on the students' journey of discovery and investigation. We will discuss several essential aspects of the teacher's role in stimulating students' motivation in this context. Teachers should provide guidance and suggestions in selecting research topics, formulating research questions, and finding relevant resources. This guidance helps students start the investigation process with confidence. Teachers need to serve as models of curiosity and a desire for intellectual exploration. By demonstrating their own investigative abilities and passion for learning, they can inspire students to develop their own investigative competencies.

Teacher feedback also plays a key role in maintaining students' motivation. By providing positive and constructive feedback on students' progress and efforts, teachers encourage them to continue developing in the area of investigative competence. Teachers must be flexible and adapt their approach to the individual needs of students. Each student has their own pace and level of development, and teachers need to be aware of this and provide the appropriate support.

Encouraging autonomy for student motivation. Teachers can encourage students to take control over their own learning and investigative process, allowing them to choose topics that they are passionate about and to develop their own research strategies. Teachers need to create a learning environment where students feel safe to explore new ideas and make mistakes. This environment encourages intellectual risk-taking and the courage to investigate in depth.

Efficient time management aspect in the development of students' investigative competence. This skill facilitates the investigation process and contributes to maintaining motivation throughout the entire process. Students must learn to allocate their time appropriately to achieve their research objectives. Proper planning of research activities, setting realistic deadlines, and organizing available resources are key aspects in efficient time management. Additionally, developing prioritization and concentration skills can help students focus on the essential aspects of the investigation and avoid wasting time on less relevant activities. Teachers and parents can play a significant role in developing students' time management skills by providing advice and support in this regard. Students' ability to manage their time efficiently will help them stay motivated and succeed in their project activities. Efficient time management is an important skill in interdisciplinary projects. These projects often involve collaboration among students from different disciplines, which can generate a variety of tasks and deadlines. To maintain motivation and efficiency in such projects, students must learn to organize and manage their time strategically. In the context of interdisciplinary projects, planning becomes a priority. Students need to clearly identify the project's objectives, set deadlines for different stages, and allocate time accordingly. Effective communication and collaboration with their project partners help them to avoid overlapping activities and ensure that each team member contributes to the project's success.

It's important to promote reflection on individual research experiences which helps to develop students' investigative competence and maintain their motivation for further investigations. Reflection facilitates a deeper understanding of the research process, allowing students to identify both their strengths and areas needing improvement [1, p. 353].

This process encourages them to evaluate personal skills, recognize individual achievements, and strengthen their confidence in their own abilities, which in turn supports the desire to continue exploring and learning. Additionally, reflection helps them identify and overcome obstacles or challenges encountered during investigations.

The teacher's role in this process is to provide constructive feedback and encourage students to docu-

ment and share their thoughts and feelings about their research experience. It contributes to their development as investigators and maintains motivation for future investigations. If in the scientific field the main objective is the acquisition of new knowledge, in the context of education, the purpose of research activity lies in developing a functional research competence for students, as a universal way to explore reality, developing the ability to think investigatively, and stimulating the student's personal position in the educational process through the acquisition of new subjective knowledge (i.e., knowledge obtained independently, which is new and personally significant for each student) [7].

In **conclusion**, the development of investigative competence within an interdisciplinary approach amplifies the learning process, quips students with the necessary skills and motivation for sustained inquiry and knowledge acquisition. It is important for educational systems to advocate for this capability, securing their proficiency and achievement in a constantly evolving world.

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