Published Date: - 01-05-2025
Page No: - 330-332

ENHANCING FUTURE TEACHERS' INFORMATION-HANDLING COMPETENCE THROUGH LEARNING TASKS

Temirov Oybek
NAMSU PhD Student, Uzbekistan

Abstract. This article analyzes the pedagogical and methodological aspects of improving future teachers' information processing skills through educational tasks. It examines the role, types, methodological features, and effectiveness of learning tasks in the context of modern education. The article highlights approaches to designing learning tasks based on constructivism, active learning theory, and digital pedagogy. It also provides commentary on the research and practical significance of renowned scholars such as John Dewey, Lev Vygotsky, and David Jonassen in this field.

Keywords: - Learning tasks, information competence, future teachers, constructivism, active learning, digital pedagogy, critical thinking, educational technologies.

INTRODUCTION

In today's rapidly evolving information society, the role of teachers has significantly expanded. They are no longer seen merely as transmitters of knowledge but are increasingly expected to function as facilitators of learning, equipped with advanced skills in locating, analyzing, evaluating, and utilizing information effectively. This shift in expectations reflects the growing importance of information literacy in modern education. Accordingly, in the training and professional development of future educators, the use of well-designed learning tasks becomes an essential pedagogical strategy. These tasks play a fundamental role in cultivating students' competencies in managing information from diverse sources and in diverse formats.

By engaging with such tasks, prospective teachers are not only able to deepen their understanding of theoretical concepts, but they also develop essential practical skills. These include the ability to apply knowledge in real-world scenarios, critically assess the credibility and relevance of data, and devise innovative solutions to complex educational problems. Moreover, learning tasks contribute to fostering independent thinking, collaborative work, and the use of digital tools—competencies that are crucial for educators operating in 21st-century classrooms.

From a pedagogical perspective, learning tasks can be comprehensively analyzed through several interrelated dimensions, each of which contributes to their overall effectiveness in the educational process.

Theoretical foundations: Learning tasks are grounded in well-established educational theories such as constructivism, which emphasizes the active construction of knowledge by learners through experience and reflection. They are also supported by the principles of active learning, which promotes student engagement through participation, exploration, and collaboration. In addition, insights from cognitive psychology inform how information is processed, retained, and applied, thereby shaping the design of tasks that align with learners' mental processes and developmental stages.

Methodological aspects: From a methodological standpoint, the structure and variety of learning tasks are key to addressing diverse learning needs. These include individual tasks that promote self-directed learning and autonomy, as well as group tasks that foster collaboration, communication, and social interaction among students. The types of tasks—such as analytical, reflective, or problem-solving activities—also determine the depth of engagement and learning outcomes, making the thoughtful selection and combination of task types crucial in instructional planning.

Practical implementation: In practical terms, learning tasks are increasingly being integrated with digital tools and platforms to enhance accessibility, interactivity, and engagement. Platforms such as learning management systems (e.g., Moodle, Google Classroom) or collaboration tools (e.g., Padlet, Jamboard) enable students to engage with content in innovative ways. Additionally, the incorporation of interactive activities, such as quizzes, simulations, and multimedia projects, along with project-based learning tasks, supports deeper understanding by encouraging students to apply their knowledge in real-life or simulated contexts.

This article delves deeper into these aspects and explores their significance in the preparation of future teachers.

1. The Pedagogical Significance of Learning Tasks. In the constructivist approach, knowledge is actively constructed; thus, learning tasks should encourage students to engage in independent and reflective thinking.

As John Dewey emphasized, “learning is a process that occurs through experience” [1]. According to his view, learning tasks should be connected to real-life contexts. Lev Vygotsky introduced the concepts of “social interaction” and the “zone of proximal development.” According to his theory, educational tasks should align with the learner’s developmental level [5].

1.2 Types of Learning Tasks

In developing future teachers’ information competencies, the following types of tasks are commonly used:

- Research tasks – aimed at searching for and analyzing information.
- Project-based tasks – focused on developing practical solutions.
- Discussion tasks – designed to foster critical thinking.
- Interactive tasks – implemented through digital platforms to complete specific assignments.

2. Methods for Developing Information Competencies through Learning Tasks

2.1 Skills in Searching and Evaluating Information

In order to effectively develop their information competencies, students must master a series of essential stages that form the foundation of critical and independent learning in the digital age:

Source selection: The first and perhaps most crucial step involves the ability to identify, locate, and extract information from credible and authoritative sources. This includes distinguishing between scholarly and non-scholarly materials, evaluating the trustworthiness of online databases, and discerning bias or misinformation in various forms of media. Developing this skill ensures that learners base their work on accurate and evidence-based information.

Information analysis: Once relevant sources are gathered, students must engage in the critical evaluation of content. This includes analyzing the purpose, perspective, and structure of the information; assessing its relevance to the task at hand; and interpreting the data within a broader academic or practical context. This stage cultivates higher-order thinking skills, such as comparison, synthesis, and judgment, which are essential for academic success and informed decision-making.

Application of information: Finally, students must be able to meaningfully apply the gathered and analyzed information to complete specific learning tasks. This involves integrating data into written assignments, presentations, discussions, or projects in a coherent and purposeful manner. The ability to apply information appropriately demonstrates not only comprehension but also the capacity to transform knowledge into practice—an essential trait for future educators and professionals in any field.

As David Jonassen noted, "structuring information is the organization of cognitive processes" [2]

2.2 Utilization of Digital Technologies

Modern learning tasks can incorporate the following tools:

- Google Scholar, ResearchGate – for searching scholarly articles.
- Padlet, Miro – for organizing collaborative group work.
- Kahoot, Quizizz – for creating interactive quizzes and assessments

3. Research by Prominent Scholars and Their Influence

3.1 Sugata Mitra – "Minimally Invasive Education"

Mitra's research demonstrates that children are capable of learning independently through access to the internet [3]

3.2 Marc Prensky – "Digital Proficiency"

According to Prensky, modern students interact with technology in a natural and intuitive way [4].

CONCLUSION

Learning tasks are an essential tool for developing future teachers' skills in working with information. These tasks should be designed based on constructivist approaches, active learning principles, and digital pedagogy.

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