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PEDAGOGICAL FOUNDATIONS FOR DEVELOPING RESEARCH COMPETENCE IN FUTURE TEACHERS

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Abstract. The development of research competence among future teachers has become an essential requirement of modern pedagogical education. Contemporary educational systems demand teachers who are not only capable of transferring knowledge but also able to analyze educational problems, conduct research, and implement innovative pedagogical solutions. This paper examines the pedagogical foundations for developing research competence in future teachers. The study analyzes the conceptual structure of research competence and highlights the pedagogical conditions necessary for its formation in higher education institutions. Particular attention is given to the role of innovative teaching approaches, including problem-based learning, project-based learning, and case-study methods, in fostering students' research skills. The findings indicate that integrating research activities into the educational process enhances analytical thinking, critical reflection, and professional development among future teachers. The paper also emphasizes the importance of creating a supportive academic environment that encourages independent research activity.
Keywords: research competence, teacher education, scientific inquiry, innovative pedagogy, higher education.

INTRODUCTION

In the context of rapid global changes and the modernization of education systems, the preparation of future teachers requires the development of competencies that extend beyond theoretical knowledge. Modern teachers are expected to demonstrate research skills, critical thinking, and the ability to apply scientific approaches to educational challenges. Consequently, the formation of research competence has become one of the key objectives of teacher education.

Research competence enables teachers to identify pedagogical problems, design research strategies, analyze data, and implement evidence-based solutions in the educational process. As Shulman (1987) emphasizes, professional teaching knowledge involves the integration of theory, practice, and inquiry. Therefore, the inclusion of research activities in pedagogical education is considered an important factor in the professional development of future teachers.

In contemporary higher education, the cultivation of research competence contributes to the development of innovative thinking and reflective practice among students. According to Darling-Hammond (2006), effective teacher education programs integrate research-based learning approaches that encourage students to investigate educational phenomena and develop practical solutions.

RESEARCH COMPETENCE IN TEACHER EDUCATION.

Research competence can be defined as an integrative professional characteristic that reflects an individual's ability to identify scientific problems, formulate research objectives, select appropriate methods, analyze data, and draw evidence-based conclusions. Scholars such as Zeer and Symanyuk (2014) consider research competence an essential component of teachers' professional competence.

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Structurally, research competence includes several interconnected components:

– **Cognitive component**, which involves knowledge of research theory and methodology;

– **Practical component**, which includes the ability to apply research methods in educational contexts;

– **Motivational component**, reflecting interest and engagement in scientific inquiry;

– **Reflective component**, which involves critical evaluation of research outcomes and professional practice.

These components collectively contribute to the development of analytical thinking, creativity, and problem-solving abilities among future teachers. Cochran-Smith (2009) notes that inquiry-oriented teacher education programs help students develop a research-based perspective toward teaching practice.

METHODS FOR DEVELOPING RESEARCH COMPETENCE. Modern pedagogical research identifies several effective methods for developing research competence in teacher education programs. Among them, problem-based learning, project-based learning, case-study methods, and participation in scientific research projects play a particularly significant role.

Problem-based learning encourages students to investigate real educational problems and develop evidence-based solutions. This approach promotes independent thinking and active engagement in the learning process (Hmelo-Silver, 2004). Similarly, project-based learning allows students to design and implement research projects, which strengthens both practical and analytical skills.

Case-study methods also contribute to the development of research competence by allowing students to analyze complex educational situations and propose innovative solutions. Through these methods, students gain valuable experience in applying theoretical knowledge to real-world contexts.

CONCLUSION

The formation of research competence among future teachers is a crucial component of modern pedagogical education. Teachers who possess research skills are better prepared to analyze educational challenges, implement innovative teaching strategies, and contribute to the continuous improvement of the educational process.

The findings of this study demonstrate that integrating research activities into teacher education programs significantly enhances students' analytical thinking, creativity, and professional development. In particular, the use of problem-based learning, project-based learning, and case-study methods provides effective opportunities for developing research competence.

Furthermore, the creation of a supportive academic environment that encourages independent research activities is essential for fostering students' scientific thinking and professional growth. Strengthening collaboration between teachers and students, as well as promoting participation in research projects and academic conferences, can significantly contribute to the development of research competence in future educators.

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