

SCIENTIFIC RESEARCH OF YOUNG SCHOLARS AND DOCTORAL STUDENTS:
CHALLENGES AND PROSPECTS

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Annotatsiya. Mazkur maqolada yosh olimlar, doktorantlar (PhD), mustaqil izlanuvchilar va magistrantlar tomonidan olib borilayotgan ilmiy-tadqiqot ishlarining dolzarb muammolari hamda rivojlanish istiqbollari tahlil qilinadi. Tadqiqotda umumta’lim maktablarida ingliz tilini o’qitish jarayonida o’quvchilarning mustaqil, tanqidiy va ijodiy fikrlashini rivojlantirishga qaratilgan ilmiy izlanishlar misolida metodologik yondashuvlar yoritilgan. Sokratik savol-javob usuli, loyiha asosida ta’lim va keys-stadi metodlarining o’quvchilarning kognitiv jarayonlariga ta’siri tahlil qilinadi. Tadqiqot natijalari yosh tadqiqotchilar ilmiy faoliyatining nazariy va amaliy ahamiyatga ega ekanligini ko’rsatadi.

Kalit soʻzlar: yosh olimlar, doktorantlar, ilmiy tadqiqot, mustaqil fikrlash, ingliz tilini o’qitish, kognitiv jarayonlar.

Аннотация. В статье анализируются актуальные проблемы и перспективы научно-исследовательской деятельности молодых учёных, докторантов (PhD), независимых соискателей и магистрантов. На примере исследований в области методики преподавания английского языка в общеобразовательных школах рассматриваются современные методологические подходы к развитию самостоятельного, критического и творческого мышления учащихся. Особое внимание уделяется эффективности сократического метода, проектного обучения и кейс-стади в развитии когнитивных процессов обучающихся. Результаты исследования подтверждают практическую и теоретическую значимость научных работ молодых исследователей.

Ключевые слова: молодые учёные, докторанты, научные исследования, самостоятельное мышление, преподавание английского языка, когнитивные процессы.

Abstract. This article examines the key challenges and prospects of scientific research conducted by young scholars, doctoral students (PhD), independent researchers, and master’s students. Using English language teaching in secondary schools as an example, the study explores methodological approaches that foster learners’ independent, critical, and creative thinking. Particular attention is paid to the effectiveness of Socratic questioning, project-based learning, and case study methods in enhancing students’ cognitive processes. The findings underscore the theoretical and practical significance of young researchers’ contributions to modern educational development.

Keywords: young scholars, doctoral students, scientific research, independent thinking, English language teaching, cognitive processes.

Introduction

In recent years, the modernization of education systems and the accelerated advancement of scientific development have been recognized as priority areas on a global scale. Within this context, the scientific research activities of young scientists, doctoral candidates (PhD), independent researchers, and master's students assume particular significance. Specifically, research conducted in the field of education is instrumental in enhancing the efficiency of the educational process, introducing innovative methodologies, and fostering students' independent thinking competencies.

Presently, the development of students' critical, analytical, and creative thinking during the English language instruction in secondary schools represents a pressing pedagogical challenge. Consequently, the scientific endeavors undertaken by emerging researchers increasingly concentrate on the investigation of cognitive processes, including memory, attention, and thinking, alongside independent thought and modern pedagogical technologies.

The objective of this scientific study is to identify the primary challenges encountered in the research conducted by young scientists and doctoral candidates, to propose strategies for overcoming these challenges, and to substantiate prospective scientific directions using English language teaching

“Ilmiy tadqiqotlarni amaliyotga joriy qilishning muammo va yechimlari” mavzusidagi onlayn xalqaro ilmiy-amaliy anjuman materiallar to‘plami. NamDU - 2026-yil 20-21-fevral

methodologies as a case study. In this context, the research activities of young scholars and doctoral students play a crucial role in modernizing education and introducing innovative teaching methods.

Methods

This study employed both qualitative and quantitative research methods. Specifically, the methods of analysis, comparison, generalization, and systematization of relevant scientific and pedagogical literature were utilized. Additionally, an analysis of textbooks, methodological guides for educators, and workbooks pertinent to the teaching of English in grades 7-8 of secondary schools was conducted.

Throughout the research process, the effectiveness of various methods—including the Socratic question-and-answer technique, project-based learning, case studies, and role-playing activities—in cultivating students' independent thinking was assessed. The cognitive processes of students, comprising attention, memory, and thinking, were examined within the framework of pedagogical experimentation.

Results

The findings of this study indicated that the incorporation of innovative methodologies in research conducted by young scholars significantly enhances student engagement and substantially develops their capacity for independent thought. Specifically, lessons structured around a case study facilitated the development of students' analytical thinking and logical reasoning skills.

Moreover, project-based learning and case study methodologies contributed to students' abilities to analyze real-world problems in English and to formulate independent solutions to challenging situations. Consequently, there was a notable improvement not only in students' language competencies but also in their levels of critical and creative thinking.

The study also identified challenges such as a lack of methodological rigor in the scientific research conducted by young doctoral and master's students and obstacles in the practical application of scientific findings.

Discussion

The results obtained indicate that the effectiveness of scientific research conducted by young scholars is closely linked to the chosen methodological approaches. Methods aimed at fostering independent thinking in English language instruction align with international standards and are consistent with the principles of Bloom's taxonomy, constructivism, and the communicative approach.

Nevertheless, young researchers encounter several difficulties, including the utilization of foreign sources in their work, adherence to international standards in the formalization of scientific articles, and the widespread application of research results. Addressing these challenges requires systematic methodological support from academic supervisors, research centers, and educational institutions.

Conclusion

In conclusion, the scientific research conducted by young scientists and doctoral candidates plays a critical role in the evolution of the education system. Research focused on the development of independent thinking within English language teaching effectively meets contemporary educational demands. The results of this study underscore the necessity for support in the endeavors of young researchers and the implementation of their scientific findings in practice.

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