

## THE PRACTICE OF FORMING SCIENTIFIC RESEARCH SKILLS OF MASTER'S STUDENTS

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**Abstract:** This article analyzes the practice of forming research skills in master's students. Scientific research activity is an important component of the higher education system, and at the master's level, the formation of students' skills in the practical application of theoretical knowledge and conducting scientific research is of great importance. The study examines the factors influencing the development of research competencies, effective methods, and innovative approaches.

**Keywords:** master's degree, research, research skills, innovative approach, scientific competence.

### INTRODUCTION

In the modern educational process, students studying at the master's level should not only possess deep theoretical knowledge, but also develop skills in conducting independent research activities. Scientific research skills create the opportunity to increase the analytical thinking of master's students, the formation of innovative approaches, and the contribution to the development of science. Today, the introduction of effective methods and advanced technologies for the development of research activities of master's students is of great importance. The process of forming research skills depends on various factors, among which the main place is occupied by the system of methodological training, work with scientific supervisors, the relevance of the research direction, and the possibilities of applying scientific results in practice. This article analyzes the theoretical and practical aspects of the formation of research skills of master's students. The main factors influencing the development of research competencies, problems, and ways to solve them are considered. The research results include recommendations for the effective organization of the scientific activities of master's students.

### LITERATURE ANALYSIS AND METHODOLOGY

Research on the formation of research skills of master's students is covered in many pedagogical and scientific-methodological sources. In many studies, it is emphasized that the readiness of master's students for research activities is connected with the formation of their scientific competencies. For example, N. A. Shermukhamedova in her book "Methodology of Scientific Research" (2020) describes in detail the processes of mastering theoretical and practical knowledge necessary for conducting scientific research. The author emphasizes that for the formation of scientific competencies, it is necessary to use problem-based learning, experimental research, and interactive methods. Also, one of the important aspects is the issue of the effective organization of scientific research activities. In particular, G. K. Saidova and Sh. A. Akhmedov's article "Methodology for Organizing Research Work in Higher Education" (2021) highlights the importance of such processes as scientific guidance for master's students, drawing up a research plan, and collecting and analyzing empirical data. This study also analyzes approaches aimed at improving the skills of master's students in conducting independent research.

In addition, an important component of the formation of research skills is the readiness of master's students for scientific activity. In the article by O. M. Rakhmonov "Methods of Developing Students' Competence in Conducting Scientific Research" (2019), the main problems encountered by master's students in their research activities and ways to solve them are highlighted. The author emphasizes that when conducting scientific research, students need to develop analytical thinking, summarize research results, and improve their skills in writing scientific articles. Modern technologies and innovative approaches play an important role in the development of research competencies of master's students. M. T. Khudoyberganov's article "The Possibilities of Using Information Technologies in Research Work" (2022) discusses methods of analyzing scientific data, using databases, and conducting scientific research using modern software.

The article uses empirical and theoretical research methods, methods of comparison, analysis and synthesis, statistical analysis, and pedagogical observation.

## RESULTS

The results of the research conducted on the formation of research skills of master's students made it possible to identify important factors, effective methods, and existing problems in this process. According to the results of the analysis carried out within the framework of the study, there are several factors influencing the formation of research competencies of master's students. For example, the readiness of master's students for scientific activity depends on their level of theoretical knowledge, analytical abilities, and independent research skills. Also, the process of effective communication and guidance with scientific supervisors plays an important role in the development of research abilities of master's students, and the use of modern technologies in the research process serves to increase the effectiveness of scientific research.

## Effective methods for the development of research activities

Methods of problem-based learning and project-based training of master's students contribute to increasing their interest in research activities. Also, the use of interactive seminars and trainings positively influences the improvement of master's students' skills in scientific speech, evidence-based thinking, and preparation of written works. The use of information technologies is also quite effective, and the accuracy of research results is ensured through the analysis of scientific articles, the use of databases, and the application of statistical methods.

## Problems encountered in the process of forming research skills

Some master's students lacked experience in conducting independent research. The limited possibilities of constant communication and consultation with scientific supervisors affect the effectiveness of scientific activity. Also, insufficient access to the literature necessary for research, international scientific sources, and modern research methods can hinder the scientific development of master's students. In order to eliminate such problems, it is necessary to widely introduce special courses on the methodology of scientific research for master's students. The organization of regular seminars and consultations between scientific supervisors and students contributes to the effective organization of the research process. It is necessary to expand the opportunities for master's students to use international scientific sources for conducting scientific research.

## DISCUSSION

Research conducted on the practice of forming research skills of master's students shows that the development of research competencies is of great importance in the professional training of master's students. Based on the research results, it is possible to discuss various approaches to more effective organization of this process.

### Factors influencing the formation of research skills

During the discussion, it was established that the research skills of master's students depend on several key factors. The first is theoretical knowledge and methodological training, and for conducting scientific research, students must have sufficient knowledge of methodological approaches and research methods. Combining theoretical knowledge with practice in the educational process plays an important role in the development of scientific competencies. The second factor is independent thinking and analytical abilities, and in the process of conducting scientific research, the skills of independent analysis, comparison of evidence, and evaluation of results are of great importance. Therefore, it is necessary to develop special methods for the formation of critical thinking skills in master's students. The third is scientific leadership and mentorship, and the role of scientific supervisors in effective work with students, their control and direction of the research process is invaluable. The study showed that the scientific activity of master's students largely depends on the level of support of their supervisors for their interests.

### Effective approaches to the development of research skills of master's students

During the study, effective methods used for the development of scientific competencies of master's students were analyzed. Problem-based learning and project-based teaching methods encourage students to engage in independent research and serve the development of their research abilities. The organization of scientific seminars and conferences, the presentation of research results, and the exchange of opinions with the scientific community contribute to improving the scientific speaking and writing skills of master's students. The use of information technologies and the application of modern technologies in the process of scientific research (for example, the use of electronic databases, the use of statistical analysis programs) increases the effectiveness of the scientific process.

### Proposals for the formation of research skills

Based on the research results, a number of proposals are put forward for the development of research competencies of master's students. For example, it is necessary to strengthen special courses on the methodology of scientific research and pay attention to the connection of theoretical knowledge with practice. Increasing the number of scientific seminars and trainings, gaining master's students' experience in conducting independent scientific work will undoubtedly yield effective results. It is also necessary to improve the approach of scientific supervisors to master's students and establish a mentoring system. In addition, it is necessary to facilitate master's students' access to scientific information by expanding access to electronic resources and international scientific databases.

### CONCLUSION

The formation of research skills of master's students is of great importance in their academic and professional development. The research results showed that this process is inextricably linked with the use of effective teaching methods, scientific guidance, and modern technologies. For the development of research competencies of master's students, it is necessary to widely introduce special courses on research methodology, establish effective cooperation with scientific supervisors, and widely use modern technologies and international scientific sources for scientific research. The implementation of these proposals will serve to increase the research potential of master's students and increase their interest in scientific activity.

### THE LIST OF USED LITERATURE:

1. N. A. Shermuhamedova – Ilmiy tadqiqot metodologiyasi (2020).



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Journal: <https://www.academicpublishers.org/journals/index.php/ijai>

2. G. K. Saidova, Sh. A. Axmedov – Oliy ta’limda ilmiy-tadqiqot ishlarini tashkil etish metodikasi (2021).
3. O. M. Rahmonov – Talabalarning ilmiy izlanish olib borish kompetensiyasini rivojlantirish usullari (2019).
4. M. T. Xudoyberganov – Ilmiy-tadqiqot ishlarida axborot texnologiyalaridan foydalanish imkoniyatlari (2022).