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PEDAGOGICAL ASSESSMENT OF STUDENT COMPETENCIES IN A CREDIT-MODULE LEARNING SYSTEM: AN EMPIRICAL STUDY

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ABSTRACT

The article examines the pedagogical assessment of students' competencies in the context of a credit-module learning system. The aim of the study is to evaluate the level of formation of professional, general cultural, and research competencies. The research was conducted at Karakalpak State University among 116 students enrolled in the "Applied Psychology" programme. The methods used included observation, questionnaires, testing, and analysis of students' academic activities. The assessment was carried out based on the competencies GC-2, GPC-2, GPC-3, and PC-3. The results revealed a predominance of the medium level of competency formation (55–60%), with 19–24% of students demonstrating a high level and 20–28% a low level. The weakest area was PC-3, indicating the need to strengthen practice-oriented training. It was established that comprehensive diagnostic assessment improves the objectivity of evaluating educational outcomes and contributes to enhancing the quality of student training.

KEY WORDS: Pedagogical Assessment, Competencies, Credit-Module System, Higher Education, Quality Of Education.

INTRODUCTION

The modern higher education system is developing in the context of the introduction of credit-based, modular learning and a competency-based approach. Therefore, improving pedagogical diagnostic mechanisms to ensure an objective assessment of educational outcomes and improve the quality of specialist training is particularly urgent.

In Uzbekistan, the modernization of the education system is being carried out in accordance with the Law of the Republic of Uzbekistan "On Education" and the Concept for the Development of the Higher Education System until 2030 [2; 3]. These documents provide for updating the content of educational programs, introducing innovative technologies, and improving the system for monitoring learning outcomes. Comprehensive pedagogical diagnostics contribute to the effectiveness of the educational process and provide the conditions for psychological and pedagogical support for students. In the context of digitalization of education, the importance of information and communication competence, including skills in working with digital resources, processing information, and using modern technologies in educational activities, is increasing [7].

MATERIAL AND METHODS

The research methodology included several interrelated stages. In the first stage, empirical data were collected through pedagogical observation, questionnaires, testing, and analysis of students' academic activities. In the second stage, systematization and comparative analysis of indicators of academic performance, practical training, and students' research activity were carried out.

The study employed a set of diagnostic methods, including oral questioning, written tests, practical assignments, testing, as well as self-assessment and reflective analysis. The assessment was aimed at determining the level of students' theoretical training, the formation of professional and communicative competencies, the ability to apply knowledge in practical activities, as well as the level of learning motivation, independence, and readiness for research work.

Based on the analysis of the obtained data, a system of criteria for assessing the quality of education was developed. This system includes the mobility of the educational process, the level of student preparation, the effectiveness of certification systems, the use of innovative educational technologies, and student participation in research activities. The results were processed using methods of pedagogical analysis and quantitative and qualitative data interpretation. The use of a comprehensive diagnostic program allowed us to determine the level of development of students' professional competencies and identify key areas for improving the educational process in the context of modern higher education.

RESULTS AND DISCUSSION

To improve the effectiveness of research and experimental work in higher education, an education quality assessment program was developed and tested for the Practical Psychology program in the Faculty of Art History at Karakalpak State University. The program is aimed at improving the pedagogical assessment of educational outcomes in a credit-modular learning system and aims to identify the level of development of students' professional competencies.



An empirical study was conducted among first- and second-year students majoring in Practical Psychology. A total of 116 students from seven academic groups participated in the pedagogical experiment. The theoretical and methodological basis of the study was the diagnostic assessment method for the quality of education proposed by S. Kaipova [4], based on a comprehensive analysis of quantitative and qualitative indicators of the educational process.

The relevance of the study is determined by the fact that the traditional assessment system, primarily focused on quantitative indicators, does not fully allow for determining the level of students' professional competency development [5]. In this regard, traditional forms of assessment were considered as elements of a comprehensive diagnostic system integrated with modern methods of pedagogical evaluation, which ensured a more objective assessment of educational outcomes [6].

The modern system of teacher education is focused on developing students' general cultural, professional, and research competencies necessary for successful professional work. In the context of digitalization, skills in working with digital technologies, teamwork skills, analytical thinking, and a commitment to continuous professional development are particularly important. The study included questionnaires, pedagogical observations, and an analysis of students' learning and research activities. The results obtained allowed us to determine the level of development of research competence and identify the specific features of students' professional preparation.

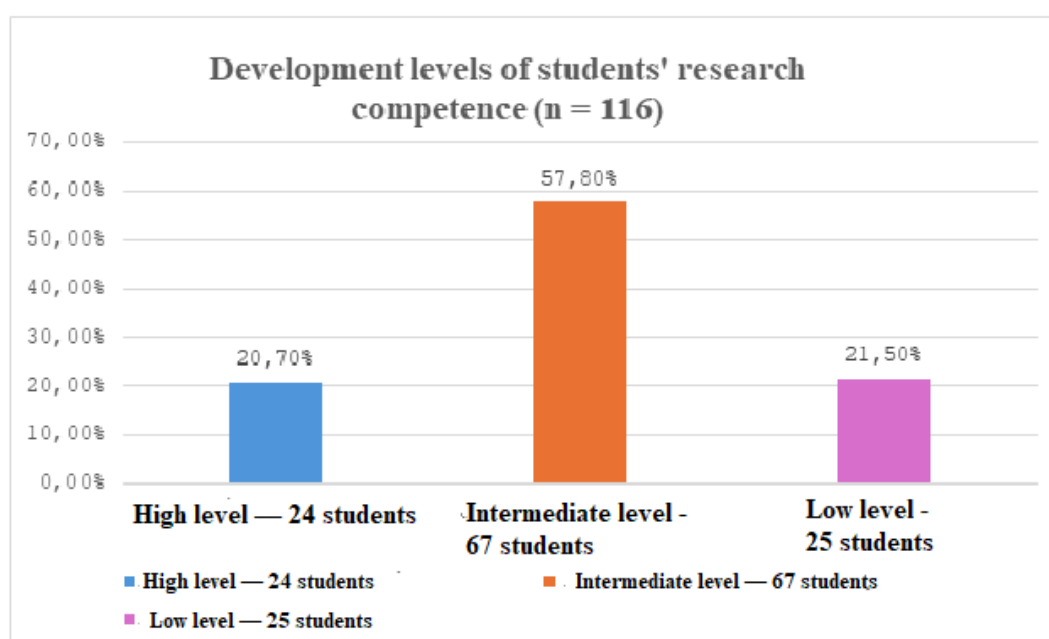


Figure 1. Distribution of students by levels of development of research competence at the ascertaining stage of the study

An analysis of the results presented in Figure 1 indicates that the majority of students (57.8%) exhibited a moderate level of research competence. A high level was found in 20.7% of students, demonstrating a strong motivation for research, the ability to analytically process information, and active participation in project work. However, 21.5% of respondents demonstrated a low level of research competence, indicating the need to improve pedagogical support methods and implement practice-oriented teaching technologies.

The study placed particular emphasis on organizing collaborative student activities aimed at understanding and interpreting scientific texts. This approach facilitated the development of students' ability to analyze authors' scientific positions, evaluate research problems from a value perspective, and formulate their own research perspectives. An important component of the assessment was assessing students' ability to solve research situations simulating professionally oriented tasks.

The process of solving research situations included an analytical stage (problem analysis and task formulation), a projective stage (planning and developing a solution), an executive stage (project implementation), and a reflective stage (analysis of results and self-assessment of the activity). Implementation of this approach contributed to the development of research skills, increased independence, and students' readiness for professional work.

Assessing undergraduate students' learning outcomes is aimed at objectively determining the level of mastery of the educational material and the development of competencies [8]. In the modern education system, it serves diagnostic, corrective, and managerial functions, ensuring improved teaching quality, optimization of the teaching load, systematic analysis of the educational process, and the creation of a database of student achievements. This contributes to increased academic motivation and the continuous professional development of students.



Under the credit-modular system, training is accompanied by the gradual development of competencies and job functions, which allows the instructor to systematically monitor results and assess the competitiveness of graduates. Pedagogical monitoring determines whether learning outcomes correspond to objectives, analyzes the causes of deviations, and implements corrective measures if necessary. Students, in turn, have the opportunity to analyze their own performance and adjust their educational trajectory.

If students lack sufficient competencies, they complete additional modules, the content of which is determined based on the curriculum competency matrix. Based on the results of the semester assessment, decisions are made to adjust the curriculum content, develop individual learning paths, and refine teaching methods.

The study analyzed the level of competency development in second-year students ($n = 116$) across four indicators:

GC (general cultural competence) - 2;

GPC (general professional competence, the application of systematized knowledge to solve professional problems) - 2;

GPC (proficiency in verbal and professional communication culture) - 3;

PC (professional competencies) - 3.

The results showed the prevalence of the average level of formation (55–60%), with the share of the high level being 19–24% and the low level being 20–28%.

For GC-2, a sufficient level of analytical abilities was identified in some students; however, a lack of depth in understanding philosophical and methodological foundations was noted. For GPC-2, theoretical preparedness was established, while the transfer of knowledge into practical application remained limited. For GPC-3, an average level of speech and communicative competence was observed, which requires further development.

The most problematic competency was PC-3, where the highest proportion of students with a low level was recorded, indicating insufficient practice-oriented training. Overall, the results confirm the need to strengthen the practical orientation of instruction, introduce interactive teaching methods, and integrate research-based tasks into the learning process. Considering the digitalization of education, the importance of individualized educational trajectories and students' independent selection of learning programs is increasing. This is particularly relevant in the context of online learning, professional development, and retraining programs.

CONCLUSION

The study demonstrates that the implementation of a competency-based approach leads to a transformation of the structure of the teaching process and requires a differentiated set of professional competencies. Data analysis confirms the prevalence of an average level of competency development and the need to strengthen practice-oriented training, particularly in the area of pedagogical diagnostics. The quality of student training is uneven, with the development of practical diagnostic skills (PC-3) being the weakest link. Therefore, the effectiveness of training is determined not by the number of competencies mastered, but by their actual functional implementation in professional activities.

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