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FACTORS IN DEVELOPING PROFESSIONAL COMPETENCIES OF STUDENTS IN AN INCLUSIVE EDUCATIONAL ENVIRONMENT

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Abstract. This article examines the characteristics of an inclusive educational environment and elaborates on the essence of students' professional competence, based on an analysis of scientific research in the field of inclusive education. The classification of mechanisms for developing the socio-professional competence of young people — particularly students with disabilities — in an inclusive educational environment has been refined, and recommendations for fostering their development are provided.

Keywords: inclusion, inclusive approach, inclusive education, inclusive educational environment, students with disabilities, competence, competency, professional competency, modular-competency approach.

Introduction

In the modern educational system, developing socio-professional competencies in students is considered one of the primary objectives in preparing them as skilled specialists in their respective fields. Socio-professional competencies reflect a student's ability to apply professional knowledge and skills in harmony with social relations, teamwork, communication culture, and a sense of responsibility.

Particular attention is being paid to the implementation of a competency-based approach in education as one of the main directions for developing the competence of educational participants — especially the formation and advancement of the set of foundational, professional, and specialized competencies required of learners. Education grounded in a competency-based approach is oriented toward enabling students to practically apply the acquired knowledge, skills, and abilities in their personal, professional, and social activities.

Today in our country, great emphasis is placed on ensuring the active participation of all young people in public life — including persons with disabilities or special needs — and on enabling them to fully realize their potential across various spheres of professional and social activity.

Teaching individuals with disabilities — those with physical or intellectual impairments — is a complex, time- and labor-intensive process, and numerous approaches to their education exist worldwide.

In many countries around the world, the practice of educating young people with health impairments together with general education students in mainstream institutions began to spread widely in the second half of the twentieth century. This shift can be attributed to the educational community's growing recognition of the necessity and prospects of including children and young people with diverse developmental characteristics in the educational environment. This, in turn, gave rise to the approach known as inclusion in the education of young people with disabilities. A landmark step in the international consolidation of this approach was the World Conference on Special Needs Education held in Salamanca, Spain, in 1994, which affirmed that ordinary schools should accommodate all children regardless of their physical, intellectual, social, or other

characteristics, and called on the international community to treat inclusive education as the guiding principle of education policy [9].

The word *inclusion* pertains to individuals who have equal rights but unequal opportunities, and it signifies the creation of equal opportunities and conditions for everyone. Inclusion encompasses not only pedagogical and psychological dimensions, but social ones as well.

In the contemporary educational system, broad attention is being given to harmonizing and adapting the general needs of young people with diverse capabilities and from various categories, as well as to enhancing their social engagement — since socialization and integration, as a form of human life, ensure the active participation and freedom of the individual in all social processes. This, in turn, led to the emergence of the approach known as *inclusive education* in the instruction of young people with disabilities in educational institutions.

In the Law of the Republic of Uzbekistan on Education [1], the educational process for young people with disabilities is referred to as *inclusive education*, defined as follows: "Inclusive education is aimed at ensuring equal opportunities for all learners to receive education in educational institutions, taking into account the diversity of special educational needs and individual capabilities."

To develop the socio-professional competencies of students with disabilities in inclusive education, it is necessary to create an inclusive educational environment within educational institutions [2].

Inclusive educational environment is one of the important directions of modern pedagogy. It refers to systemic educational conditions aimed at ensuring equal rights and opportunities for all learners — including young people with physical, intellectual, sensory, or social differences — to participate in the educational process. In this environment, the individual needs, abilities, and levels of development of learners are taken into account, and adapted pedagogical, psychological, and social conditions are created to ensure their full participation in education. The essence of an inclusive educational environment lies in the fact that it is not limited to merely integrating students with special needs into the general education system; rather, it necessitates a comprehensive review of all components of the educational institution — curricula, teaching methods, assessment systems, teachers' professional competencies, and community relations. This aligns with the internationally recognized framework for inclusive school development, which understands inclusion as an ongoing process of reducing barriers to learning and participation through the coordinated transformation of an institution's cultures, policies, and practices [10].

Research Methodology

This study employed a comprehensive approach aimed at identifying and scientifically analyzing the factors that develop students' professional competencies in an inclusive educational environment, as well as examining their interrelationships. The research methodology was based on the principles of systemic, competency-based, person-centered, and inclusive approaches. In the course of the study, a comparative-analytical review was conducted of the scholarly works of national and international researchers dedicated to the development of professional competence among students with disabilities in an inclusive educational environment.

Analysis and Results

Students' professional competencies are regarded as one of the primary outcome indicators of the modern higher education system. They represent an integrative complex of knowledge, skills, abilities, and personal qualities that constitute an individual's readiness to effectively carry out specific professional activities. The concept of competence is not limited to the acquisition of theoretical knowledge; it also encompasses the ability to apply that knowledge in practical situations, to make independent decisions, to analyze professional problems, and to develop

solutions. From this perspective, professional competence reflects the intrinsic connection between a student's intellectual potential, practical experience, and social responsibility. This corresponds to the internationally established understanding of competence as the ability to meet complex demands by mobilizing knowledge, cognitive and practical skills, and attitudes appropriate to a given context [11].

The competencies of people living in today's world must correspond to the demands of a transforming society and the state economy. Developing universal competencies in individuals from an early age enables the creation of adaptive communities capable of rapidly meeting needs arising in complex socio-economic domains. Therefore, in the educational system, scientific research is being given considerable attention aimed at developing students' capacity for independent work, inquiry, and creativity — as well as cultivating critical and creative thinking competencies — by harnessing all possibilities of the educational process for personal development and socialization.

It is noteworthy that today in our Republic, independent scholarly schools have been established under the leadership of distinguished professors at educational institutions, focusing on the formation and development of students' competence and creativity across all forms of instructional activity.

Psychologists and pedagogical scholars who have worked in the fields of competence and creativity have extensively researched the issues of forming pedagogical competence and creativity in individuals — particularly in educators. Scholarly researchers in our country have conducted a series of scientific investigations into developing the necessary conditions, methods, and means for advancing pedagogical competence, as well as applying innovative-creative approaches to organizing the educational process, and have effectively introduced their findings into educational practice.

Researcher N. A. Muslimov and his colleagues conducted a series of investigations into the foundations of pedagogical competence and creativity, as well as into the formation and enhancement of prospective professional teachers' professional proficiency. In his works, N. A. Muslimov clearly articulated the essence of the concepts "competence" and "professional competence":

"Competence means the ability to effectively use theoretical knowledge in professional activity, demonstrating a high level of professional skill, mastery, and talent" [3].

The concept of "competence" entered the field of education as a result of psychological research. From a psychological standpoint, competence refers to "how a specialist conducts themselves in non-standard situations and unexpected circumstances, how they initiate communication, pursue new paths in mutual relations with counterparts, how they manage when performing ambiguous tasks, when working with contradictory information, and when operating within consistently evolving and complex processes."

Professional competence, in turn, is understood as the acquisition and high-level practical application by a specialist of the knowledge, skills, and abilities required to carry out professional activities.

The foundation of pedagogical competence also consists of professional competence qualities. In a number of studies — particularly those by A. K. Markova and B. Nazarova — the professional competence characteristic of a teacher, its structural foundations, and its attributes have been examined [3, 4].

Pedagogical researcher Z. T. Rahimov elaborated on the content and essence of professional competence qualities — supplementing the investigations carried out by N. A. Muslimov and A. K.

Markova [5] — and on the basis of his scientific research, substantiated the issues of pedagogical competence and its necessity in ensuring the effectiveness of the educational process.

Scholarly researcher O. Musurmonova, in her investigations, specifically highlighted the issues of pedagogical competence — in particular the necessity for teachers to possess subject-specific competence — and substantiated the classification and definitions of professional competencies, specialized competencies across general subjects, the stages of their formation among educational participants, and the directions of a teacher's professional competence [6].

Researcher S. Sh. Akbarova conducted a scientific analysis of the content of key competencies established on the basis of general requirements for the level of preparedness of graduates from various educational fields in the State Educational Standards of the Republic of Uzbekistan. In particular, she clarified the essence of social, professional, economic, general cultural, and other foundational competencies, and systematically disclosed their content-structural characteristics [7].

For example, the components constituting professional competence and their content are described as follows:

a) *informational* — searching for, collecting, processing, and purposefully utilizing necessary, significant, and useful data in the information environment;
b) *creative* — maintaining a critical and creative approach toward one's activities;
c) *innovative* — advancing new ideas aimed at improving, enhancing the quality, and increasing the effectiveness of the activity process, and successfully implementing them in practice;
d) *communicative* — maintaining sincere communication with activity participants, being able to listen to them, and exerting a positive influence on them;
e) *technological* — mastering advanced technologies that enrich one's activities, and being able to utilize modern tools, equipment, and technologies.

Consequently, in the field of education, the term "competence" denotes the qualities of independently applying in personal, social, and professional activities the knowledge, skills, and abilities acquired by learners; while "competency" is used to determine the level of mastery of these qualities. The concepts of competence and competency carry a broader meaning than the concepts of knowledge, skills, and abilities — because they encompass an individual's orientation (motivation), their capacity to overcome outdated material and ideological views, problem perception, observational ability, independent thinking, purposefulness, and other volitional qualities.

A review of the literature demonstrated that the educational process in our country's higher education system is based on a competency approach — that is, special attention is devoted to the concepts of competence and competency in the implementation of state educational standards and curricula.

Based on the foregoing, it may be concluded that organizing an inclusive educational environment plays a crucial role in developing the professional-creative and economic-cultural competencies of students with disabilities — taking into account their needs — and thereby enhancing their social engagement. Introducing inclusive education in educational institutions is not merely about assisting students with disabilities, but about giving every student the opportunity to unlock their potential. In such a system, each person acquires knowledge in a manner suited to them, which enhances both the quality of education and a culture of equality in society.

The substance of an inclusive educational environment is not limited to adapting physical conditions alone; it also encompasses the diversification of curricula, the adaptation of pedagogical technologies, the development of individual educational pathways, the advancement of teachers'

professional competencies, and the introduction of socio-psychological support mechanisms. In such an environment, the educational process is organized on the basis of universal design principles, learning materials are presented in forms suitable for diverse needs and capabilities, and the assessment system is conducted in consideration of the learner's individual achievements. In this way, the content and methodology of education take on a more flexible and adaptive character, as opposed to a standardized approach.

Scientific research indicates that an inclusive educational environment produces positive outcomes not only for young people with special needs, but for all educational participants. In such an environment, learners develop empathy, social competencies, and problem-solving skills, while educators enhance their professional mastery by mastering innovative pedagogical strategies. The inclusive approach shapes the educational institution as an open social system, serving to strengthen equality and social cohesion in society.

An inclusive educational environment creates favorable conditions for students with disabilities to realize their capabilities. Their joint study with other students in the educational process expands social connections, develops communication skills, and helps them understand their place within the group. This process serves to foster in students with disabilities a sense of being full members of society, to increase their self-confidence, and to strengthen their social engagement.

Involving students with disabilities in various social, cultural, and civic activities within an inclusive educational environment increases their social activity. Clubs, circles, and social projects organized within the educational institution serve to facilitate active participation of students with disabilities in the group, the development of leadership qualities, and the formation of a sense of social responsibility.

An inclusive educational environment exerts a positive influence not only on students with disabilities, but on the entire student community. The joint study of students with diverse needs and capabilities cultivates values such as tolerance, mutual respect, and social justice — thereby contributing to the promotion of social harmony in society.

As noted earlier, the professional competence of students develops on the basis of their professional competencies. The use of active learning methods occupies an important place in the development of professional competencies. Interactive methods, case studies, problem situation analysis, and project-based learning approaches ensure the active participation of students and develop in them the ability for practical thinking and problem-solving. Through such methods, students learn to apply theoretical knowledge to real-life situations, which strengthens their professional preparedness.

Practice-oriented education is one of the primary factors in forming professional competencies. Through industrial placements, internships, dual education, and participation in real projects, students gain the opportunity to apply their knowledge in practice. In this process, they become acquainted with the professional environment, gain an understanding of the specific characteristics of the workflow, and test themselves as specialists.

Effective use of digital technologies is also of significant importance in developing professional competencies. E-learning platforms, online courses, simulation programs, and information resources broaden students' opportunities for self-directed learning. Alongside this, modern competencies such as information analysis, digital literacy, and innovative thinking are also developed.

The role of the teacher in developing professional competencies is of special significance. The teacher should manifest not merely as a conveyor of knowledge, but as a consultant, guide, and facilitator. They apply pedagogical strategies aimed at developing students' abilities, taking into

account individual characteristics. This reflects the internationally documented craft knowledge of inclusive pedagogy, whereby teachers extend what is ordinarily made available to the whole group of learners rather than providing something separate for some, thereby avoiding the marginalization of any student [12]. In addition, motivating students and fostering professional interest and motivation are among the important tasks.

Psychological and social factors also play an important role in the process of developing professional competencies. Forming in students a sense of self-confidence, responsibility, stress resilience, and social engagement serves their achievement of success in professional activity. This is consistent with self-determination theory, according to which the satisfaction of the basic psychological needs for autonomy, competence, and relatedness is a necessary condition for sustained motivation, effective functioning, and psychological well-being [14]. At the same time, ensuring a positive psychological climate in the educational environment, and cultivating relations based on mutual respect and cooperation, exerts a positive influence on the personal and professional development of students.

Assessment and monitoring of professional competencies is also an important part of this process. Through competency-based assessment methods, practical assignments, and project work, students' genuine abilities are identified. This makes it possible to improve the educational process and monitor the dynamics of students' development. The assessment process should be motivating and developmental in character.

In the modern inclusive education system, increasing the social engagement of students with disabilities is one of the important pedagogical tasks. In this process, independent work activities occupy a special place, serving the personal development of students, their entry into social relations, and their understanding of their place in society. When the process of independent work is properly organized, students with disabilities feel free in the educational environment and develop a socially active position.

In organizing the independent work process in which students with disabilities participate, a person-centered and inclusive approach must serve as the foundation [8]. It is important that the content of independent work be determined taking into account the student's individual capabilities, psychophysiological characteristics, and educational needs. Such an approach increases the student's self-confidence and encourages them to actively participate in social interactions.

Organizing independent work in a socially oriented content format at higher education institutions is considered effective for increasing the socio-professional engagement of students with disabilities. Independent assignments prepared on the basis of socially significant topics not only raise students' professional competence, but also engage them in communication, the exchange of ideas, and collective activity. In this process, students develop skills in teamwork, freely expressing their point of view, and respecting the opinions of others.

In today's labor market conditions, the demands placed on students' professional competencies are also continuously growing. The use of digital technologies, information analysis, innovative thinking, and the capacity for self-development are taking on heightened importance. At the same time, universal competencies such as communication culture, teamwork, leadership, and stress resilience are among the important factors ensuring students' competitiveness. These competencies broaden the opportunity to function effectively across diverse fields and facilitate an individual's social adaptation.

Conclusion

The research findings indicate that the development of students' professional competencies in an inclusive educational environment is achieved through multifaceted and systemic mechanisms. The

primary factors in this process include: adapting educational content, applying interactive-active learning methods, strengthening practical activity, organizing in a socially oriented manner the independent work of students with disabilities at higher education institutions, utilizing digital technologies, providing psychological support, and introducing an effective assessment system. By harmonizing these mechanisms, it becomes possible to prepare students as socially active specialists possessing a high level of professional competence.

The following proposals and recommendations may be advanced for developing students' professional competencies in an inclusive educational environment:

1. For the effective development of students' professional competencies in an inclusive educational environment, it is first necessary to systematically introduce an inclusive pedagogical approach in higher education institutions. In this regard, adapting curricula and working subject syllabi, as well as developing differentiated and individual educational pathways, are of great importance.
2. It is recommended to apply universal design principles in the educational process — that is, to present learning materials in forms suited to diverse needs and capabilities (visual, auditory, interactive). This approach is consistent with the internationally adopted Universal Design for Learning framework, which recommends providing multiple means of engagement, representation, and action and expression so that curricula are accessible to learners with a wide range of needs from the outset [13]. This serves to develop the professional competencies of all students, alongside those with disabilities.
3. It is necessary to expand practice-oriented education in developing students' professional competencies. In particular, introducing adapted internship programs for the inclusive environment, project-based learning, mentoring, and tutoring systems yields positive results.
4. Expanding opportunities for the use of digital technologies and assistive devices is also one of the important factors. Adapting e-learning platforms and utilizing tools such as subtitles, audio descriptions, and screen reading programs enhances the effectiveness of the inclusive environment.
5. Forming an inclusive culture at higher education institutions, creating a healthy socio-psychological climate, and developing tolerance and cooperation skills among students are recognized as important social factors in forming professional competencies.

The consistent implementation of these proposals and recommendations will serve the comprehensive and sustainable development of students' professional competencies in an inclusive educational environment, and will ensure their competitiveness in the labor market.

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