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Features Of Cognitive Activities Of Students With Disabilities

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Abstract: This article examines the cognitive performance of students with disabilities in a modern higher education setting. It analyzes the psychological and pedagogical factors influencing the perception, processing, and application of information by students with various clinical groups. Particular attention is paid to the role of an inclusive educational environment, digital technologies, tutoring, and adapted educational trajectories. Based on current research, it is shown that the cognitive success of students with disabilities depends not only on their individual abilities but also on the quality of pedagogical support, the availability of educational resources, and the level of digital inclusivity at the university. It is concluded that a systematic approach to organizing inclusive education is necessary, taking into account the cognitive and emotional-volitional characteristics of students.

Keywords: Students with disabilities; inclusive education; cognitive performance; cognitive processes; adapted educational technologies; tutoring; digital inclusivity.

Introduction: In modern society, there is a growing understanding that people with disabilities are full participants in public life and should have the same rights and opportunities as all other citizens. Public policy is increasingly focused on creating conditions that ensure an inclusive educational environment and equal access to education.

In recent years, a steady trend has been observed in the higher education system: an increasing number of applicants with disabilities seeking high-quality professional training and admission to universities, both through targeted quotas and on a general basis. This demonstrates the growing motivation and commitment of young people with disabilities to professional and personal development. In recent years, the issue of organizing effective education for students with disabilities has become a priority area for the development of higher education. According to UNESCO recommendations [1], an inclusive educational environment should provide every student with access to knowledge and the conditions for realizing their potential, regardless of their health status. In Russian education, attention to this category of students has increased since the entry into force of the UN Convention on the Rights of Persons with Disabilities, which led to the modernization of the regulatory framework and the emergence of specialized educational standards [2].

However, the actual practice of interacting with students with disabilities is still evolving, and many educational institutions lack competencies in this area. Faculty and staff often struggle to choose appropriate methods of communication, fearing inadvertently offending students' feelings or violating their privacy and dignity. Issues of serving people with disabilities in libraries have previously been addressed, as well as how modern technologies can improve the quality of life of visually impaired users. The purpose of this article is to analyze the key characteristics of the cognitive activity of students with disabilities and identify pedagogical conditions that contribute to the effectiveness of their education at universities.

METHODS

Students with disabilities have unique cognitive abilities that manifest in the perception, processing, analysis, and reproduction of information. These abilities may be due to sensory impairments (vision, hearing), as well as motor, speech, or intellectual disabilities. As L.S. Vygotsky noted, the development of higher mental functions is impossible without a social context, learning, and semiotic-symbolic mediation [3]. Consequently, the effectiveness of students with disabilities' cognitive activity directly depends on the organization of the educational process and the

pedagogical technologies used. Current research shows that digital resources, adaptive learning platforms, and tutoring can significantly improve the motivation and success of students with disabilities [4]. However, insufficient teacher training, a lack of specialized materials, and limited access to digital infrastructure remain problems in university practice.

In the Russian Federation, inclusive education is enshrined in law. In particular, the Federal Law "On Education in the Russian Federation" establishes key definitions reflecting the modern understanding of inclusion: "students with disabilities," "adapted educational programs," and "inclusive education." A specialized regulation, the Federal Law "On the Education of Persons with Disabilities (Special Education)" [5], also applies. It emphasizes that special education involves the use of individualized teaching and training methods aimed at compensating for the consequences of physical and/or mental disabilities. Thus, the Russian approach emphasizes the combination of adapting the educational environment and professional training as a prerequisite for the successful socialization of students with disabilities. In the Republic of Uzbekistan, inclusive education issues are regulated by Presidential Decree No. UP-6117 of March 1, 2021, "On Additional Measures to Ensure the Rights of Persons with Disabilities" and the Law "On Education" (as amended in 2020) [6], which reflect the right of persons with disabilities to equal access to education. The strategic goals of the National Program for Education Development until 2030 provide for the implementation of inclusive educational practices in vocational and higher education institutions. However, compared to the Russian Federation, the practice of differentiated support and adaptation of curricula in Uzbekistan is still in the process of active development, particularly in the technical and IT fields.

RESULTS

When teaching students with disabilities, a preliminary analysis of their individual characteristics is particularly important, allowing us to identify so-called "risk zones" in the cognitive sphere. Typical problems include:

- decreased academic motivation;

- lack of self-control and voluntary behavioral regulation;

- fragmented understanding of the world around us;

- underdeveloped memory, attention, and thinking processes;

- speech disorders, motor instability;

- general cognitive passivity and limited operational components of learning activities.

Such diagnostics allow teachers to select appropriate support strategies: determine teaching methods, select the balance of individual and group work, and identify ways to correct and develop socially and professionally significant personal qualities (Figure 1).

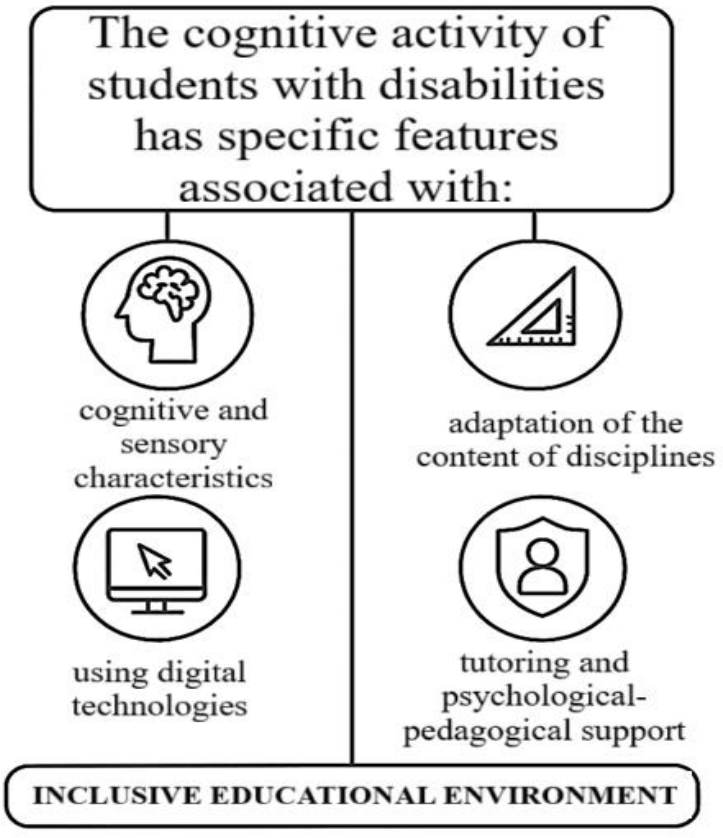

Figure 1. Features of cognitive activity of students with disabilities

A key aspect is transforming students with disabilities from passive consumers of educational information into active participants—planners and researchers capable of analyzing educational and practical situations, formulating problems, and proposing solutions. This requires a focus on active and interactive teaching methods, developing creative potential, and developing individual educational trajectories [8-12].

Thus, the need for systemic pedagogical support for students with disabilities is recognized in both the Russian and Uzbek contexts, but the specific forms and level of development of an inclusive environment depend on the maturity of the regulatory framework, the readiness of educational institutions, and the competence of teachers. In the context of integrating the educational experiences of the two countries, as in the case of a doctoral student from the Russian Federation studying in Uzbekistan, the exchange of best practices, the synthesis of adaptive methods, and the development of joint approaches to creating conditions for the full participation of students with disabilities in professional education are particularly relevant.

The analysis revealed that the cognitive activity of students with disabilities has a number of specific characteristics related to their individual cognitive, sensory, emotional-volitional, and motivational characteristics. These characteristics influence their perception, understanding, processing, and application of educational material, requiring educational institutions to create specialized pedagogical conditions that ensure the accessibility and effectiveness of learning.

The study revealed that key success factors include: the organization of an inclusive educational environment, the adaptation of course content, the use of digital technologies for universal learning design, and the implementation of tutoring and psychological-pedagogical support for students with disabilities. As noted by L.S. Vygotsky and modern researchers, student engagement in social interaction and the presence of a supportive educational environment contribute to the development of higher mental functions and the development of academic independence [3, 4].

CONCLUSION

The findings suggest that the effectiveness of teaching students with disabilities at a university largely depends not so much on the type and severity of their disabilities, but on the quality of pedagogical strategies, the professional preparedness of faculty, the level of digital inclusivity, and the availability of adapted educational resources. An important prerequisite is the development of individual educational trajectories focused on the student's strengths and personal potential.

Thus, improving the cognitive performance of students with disabilities requires a systematic approach that integrates the principles of inclusive education, digital transformation, interdisciplinary support, and collaboration among all participants in the educational process. Promising areas for further research include the development of adaptive e-learning models, assessment of the cognitive load of students with various disabilities, and the creation of evidence-based methods of pedagogical support in a dynamically evolving digital environment.

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