

– development of noosphere education of students (awareness of the potential of their own thoughts, emotions and feelings in educational processes, understanding the essence of the relationship between the individual and the biosphere and society, directing their actions to preserve and develop life in its diversity);

– implementation of cord-centered education;

– using methods of activating different types of virtualization of educational content and educational activities;

– focus on learning autonomy.

Teacher training for inclusive education should be aimed at developing spiritual values and integrate the knowledge of spirituality, the biosphere, the social environment and their interrelationships. If we want to improve education, we need to make efforts to spiritualize the content and learning process of pre and in-service teachers.

### References:

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## ROLE OF DIGITAL TOOLS IN SUPPORTING INCLUSIVE EDUCATION

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## РОЛЬ ЦИФРОВИХ ІНСТРУМЕНТІВ В ПІДТРИМЦІ ІНКЛЮЗИВНОЇ ОСВІТИ

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The development and implementation of the principles of democracy, humanism and openness in education contributes to social progress and comprehensive intellectual and spiritual development of the individual. Responding to the needs of the individual and society as a whole brings us closer to the establishment of an educational paradigm, which is the need to ensure equal access to quality education for each individual, regardless of his/her characteristics and limitations.

According to the World Bank, 10-12% of the world's population belong to the category of people with mental and physical disabilities. At the same time, the number of children under the age of 16 who fall into this category is estimated at 140-165 million people. 62 million of them are children of primary school age. They face many barriers to education, which means that school attendance rates and the percentage of those who have successfully completed their studies are much lower than their peers. Of the 75 million children worldwide who did not attend school, a third were children with disabilities. In developing countries, exclusion from the education system is much more significant for people with mental and physical disabilities, of whom about 97% can neither read nor write.

The World Bank estimates that 20% of the world's poorest people have various forms of disability. The level of literacy among people with disability (in the global dimension) is only 3%, and unemployment – 80% [1].

Partial solution of these social and educational problems is possible by increasing the availability of ICT for certain categories of the population, the introduction of open access repositories with educational and scientific content, which will provide alternative ways to acquire knowledge despite time or space constraints.

As stated in one of the UNESCO document [2], the current level of ICT development significantly expands the opportunities for teachers and students, simplifying access to educational and professional information, the functionality of teaching aids and effective management of the educational process, promotes integration of national information systems with international information resources in the field of education, science and culture. The compensatory property of new technologies allows people with disability to take an active part in the educational process despite functional limitations. Using ICT, these people are able to overcome barriers to learning by accessing a variety of teaching materials in an accessible format.

ICT in special and inclusive education can be used as a compensatory, communication and didactic tool. The use of ICT as a *compensatory tool* means their use as technical support for traditional learning activities – reading and writing, facilitating access to didactic resources and educational interaction, partially compensating or replacing the lack of natural functions. As a *communication tool*, ICTs can be used to provide an alternative form of communication, to support alternative communication, as a tool that facilitates and / or enables communication, allowing people with disability to communicate in a more convenient way. The use of ICT as a *didactic tool* has necessitated a revision of traditional approaches to teaching and learning, ushering in a new milestone in educational transformation. New technologies have brought a variety of pedagogical strategies for educating people with disability, becoming a real tool for the implementation of inclusive education.

It is worth noting that ICT tools should be selected taking into account the specifics of various disability types. Pedagogically balanced and appropriate use of ICT will allow students with disability to participate in the educational process fully, to develop individual educational strategies acceptable for them.

Among the benefits of ICT support for inclusive education are the following:

*General advantages:*

- Contribute to the expansion of student's autonomy;
- Allow to overcome communication difficulties and barriers;
- Give students the opportunity to demonstrate learning outcomes in a convenient way;
- Allow to develop educational tasks taking into account students' individual skills and abilities;

*Benefits for students:*

- Independent access to educational information;
- Ability to perform learning tasks at one's own pace (in asynchronous mode);
- Opportunity for students to use ICT as a compensatory tool, to access educational information in an alternative way.

*Benefits for educators:*

- Opportunity to communicate remotely with colleagues, learn the leading pedagogical experience of working with inclusive groups and disseminate one's own experience;
- Improving one's own skills in using ICT to support effective work with students;

– More opportunities for the preparation of didactic materials, clarity.

In particular, due to multimedia it is possible to carry out and influence correctly on various sensory zones. Materials in electronic format are easier to adapt to the needs of students (for example, large font, Braille, etc.)<sup>6</sup>.

Among the main *areas in which it is advisable to provide ICT support for inclusive education*, it is worth noting the following:

– Determining the initial level of student personal development, i.e. the initial level with which he/she starts studying;

– Support for personal development through the formation of new skills or the development of already acquired ones;

– Improving access to educational resources;

– Overcoming geographical or social barriers through communication and network support;

– Strengthening motivation to use and awareness of the benefits of ICT as a tools of supporting inclusive learning<sup>6</sup>.

Among the main *types of ICT*, suitable for use as a tool of supporting inclusive education, are:

– standard technologies – personal computers (desktop PCs, laptops, netbooks, tablet PCs (tablets), etc.) with built-in settings for people with disability;

– available data formats, or alternative formats – for example, available HTML; DAISY – digital format for recording digital audio books; Braille printers, displays and speech synthesizers, etc.;

– assistive (auxiliary) technologies – hearing aids, screen readers, keyboards with special capabilities, alternative communication systems, etc.<sup>4</sup>

For some students, the use of technical solutions is the only way to express their needs and views, to access a number of resources on a par with other peers in the educational process, to demonstrate success in an accessible and convenient way.

It is important to note that the introduction of ICT alone is not enough to solve all the problems of training people with disability. An integral condition is motivation, the educators' desire to apply and develop innovative teaching methods or to adapt existing ones to the requirements of the time. It is necessary to create conditions for each student so that he / she has the opportunity to obtain the necessary information and demonstrate learning outcomes in a convenient way. To do this, it is necessary to integrate ICT into all educational programs so that they harmoniously complement and support their implementation. Updating programs is not about simplifying them for students with disability, nor about lowering academic requirements or simplifying standards. Instead, it means striving to develop the knowledge, skills and abilities needed to successfully master a course in a more creative and flexible way.

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