

DISTANCE HIGHER EDUCATION FOR STUDENTS WITH DISABILITIES

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Abstract

In recent years, educators have been paying considerable attention to higher distance education since its advent has created wider learning opportunities for students with disabilities. The relevance is explained by the need to study the diversified forms of distance and online learning within distance university education. These are connected, firstly, with the general theory of distance education and, then, with the development and implementation of relevant distance learning systems for students with impairments.

This article is devoted to the higher distance education for students with disabilities presenting a multidimensional picture of distance learning systems in the world. It aims to give a comprehensive account of the approaches, organization, and adaptation of higher distance education in Germany, Russia, and other countries. The leading approach to the study is the comparative analysis of pedagogical, legal literature on how disabled students can use new learning opportunities, improve their learning and behavioral achievements in the process of acquiring profound social and professional skills. The authors focus on access to libraries, entrance exams, course deliveries, accommodation and other currently important changes. The result is to give a deep insight into higher distance education for students with disabilities, review the tensions at the present moment and further the perspectives in the nearest future.

Keywords: student, education, inclusive education, distance education, distance learning, e-learning, e-learning programs, disability, disabled people.

1 INTRODUCTION

Many students admit that getting a higher education degree is not easy at all. And being disabled makes it much more challenging and stressful, if not impossible. Some universities try to provide a proper environment for disabled people, but, according to recent researches, it takes them more time to graduate from university. The aim of this article is to present the recent evidence on the effectiveness of inclusive and special education e-learning approaches in improving learning and behavioral achievements of students, with a focus on Germany and Russia.

In Russia, the number of people with disabilities decreases from year to year (since 2011 – by 1 million). According to recent surveys, there are 5 million men, 6,9 million women and 636 thousand children with disabilities, which is 9,3% of the country's population. In comparison to other countries, this percentage is extremely low, but this does not mean that this 9,3 % can not get equal opportunities in getting a higher education degree with other citizens [1]. In comparison, in Finland there are 32,2% of disabled people, in the UK – 27,3%, in the Netherlands – 25,4%, Germany – 23,2 % and these countries can be seen as role models in providing a decent standard of living (including education) for their disabled citizens [2].

Thus, the implementation of distance learning for disabled students provided an alternative and effective system of education characterized by flexibility (choice of place, pace, time, duration) and modularity, wide-coverage, access to world information resources.

The main goal of online courses is to make them available to everyone, but unfortunately, most of them are not designed to be suitable for those with disabilities. For example, pictures, tables and charts are useless for those who are blind, videos do not always include subtitles, which makes them useless for deaf people, and students with mobility impairment may also have problems with the navigation on a web site.

2 METHODOLOGY

The foreign pedagogical literature on inclusive education shows a variety of approaches to the definition of the very terms “integrated” and “inclusive”. Thus, German scientist Alfred Sander points out that “inclusive” education is a further development of “integrated” one in the countries with a solid ground for integration [3]. German scientists Dr. R. Ommerborn and Dr. R. Schuemer researched the problem of disabled people in getting a higher education degree at Distance University Hagen [4].

Burgstahler, S., Corrigan, B. and McCarter, J. [5] offered different ways of making distance learning accessible for students with disabilities. Dr. S. Parthasarathy studied the characteristics, enrollment, support services, and employability of disabled students in India [6]. Erickson, M. and Larwin, K. from the USA examined the impact of distance education participation by students identified as “special education”, specifically the results of their achievements [7]. Cinquin, P., Guitton, P. and Sauzéon, H. from university Bordeaux, France raised the question of the existence of studies addressing the specific needs of persons with cognitive impairments [8]. Moisey, S. conducted a research on Canadian students with disabilities in postsecondary education and the support services they require, he showed that the more types of support services they received, the more success they had in terms of course completions, that certain types of disabilities appeared to be more amenable to certain types of assistance [9].

In recent years, research on distance learning at university has become very popular among the scientists of developing countries: the importance of ICT and eLearning in university effectiveness is a focus of attention of Sekiwu, D. and Naluwemba, F.[10] . Mapuranga, B. and Nyenya, T. emphasize the importance of higher education reforming, admission policy, infrastructure, and special educators' training [11] .

Some publications have appeared in recent years in foreign pedagogy addressing the tension in inclusive and special education [12] (Joseph Mintz, 2015). Scientists (Elesina, E.N., 2018; Nikitina, E. L., 2014; Pokushalova, L.V., 2009; Suvorova, I.V., 2015) [13,14,15,16] discuss the problems and perspectives of inclusive education in Russia.

The methodical and didactical ideas of the process of distance education in Russia, about the technologies, “individual pathways” are reflected in the works of Khutorskii A.V. [17], Dr. Polat, E.S.[18]. Khutorskii A.V. in his book “Internet at school” analyses the previous pedagogical experience and suggests the implementation of ICT and e-learning facilities to encourage first pupil's creativity [17]. Distance Education Models for children with limited possibilities of health and children-invalids in Russia were suggested by the director of the Regional Center of Distance Education Golovatch, A.F. and his follower Kokhan, N.V.[19], Suvorova, I.V. [16]. The aspects of university socialization and education of the disabled are presented in the works of Kantor, V.Z., Nikulina, G.V. and Nikulina, I.N. [21], Kantor, V.Z. and Project, J.L.[22], Stanevskii, A.G. and Khrapilina, L.P. [23]

Today, the percentage of distance learning in higher education in foreign countries reaches 30 - 40%. In the Russian Federation, distance education has been widely realized at universities, and their number increases significantly every year.

The questions have remained quite relevant today: Are distance approaches of inclusive and special education effective? Do they help improving student's learning and behavioral achievements? How to organize or adapt the process of distance higher education to realize disabled students' educational needs, for them to acquire profound social and professional skills?

The authors performed a comparative analysis of domestic and foreign psychological and pedagogical, methodological literary sources, normative and legal documents relevant to the topic of research over the last decade. The synthesis of ideas about models of distance education in the world, pedagogical observation and interviews allowed presenting a multidimensional picture of e-learning systems, identifying shortcomings and main prospects of flexible educational programs meeting the diverse needs of students opting for higher education.

3 RESULTS

E-learning (distance learning, eLearning, online learning) is a form of distance education that involves “physical separation of teachers and students during instruction and the use of various technologies to facilitate student-teacher and student-student interaction”. [24, 13].

In order to choose or design e-learning courses for students with disabilities, we, firstly, need to know the different types of disabilities and their particularities.

S. Goering came in her research to the conclusion, that disability is ordinarily seen as a problem connected with a person's body and requires medical treatment.[25] .But in fact, it is not only about our bodies. Some of them are hidden (invisible disabilities) so that other people would not even notice it.

The Disability Discrimination Act (DDA) defines a disabled person as “someone who has a physical or mental impairment that has a substantial and long-term adverse effect on his or her ability to carry out normal day-to-day activities”. [26]

According to the International Classification of Functioning, Disability and Health (ICF), we can highlight eight main types of disabilities:

- Mobility and Physical Impairments (can be in-born, as well as acquired with age, and is connected with the inability to coordinate with different parts of the body)
 - Spinal Cord Disability (can be in-born, but also acquired due to accidents)
 - Head Injuries – Brain Disability (can occur after birth or due to emotional dysfunctioning and behavioral disturbance)
 - Vision Disability
 - Hearing Disability
 - Cognitive or Learning Disabilities (e.g. dyslexia, speech disorders)
 - Psychological Disorders (Personality Disorders and Schizophrenia)
 - Invisible Disabilities, which include Chronic Health Impairments (not immediately noticed by other people, but, for example, 10% of the population in the US suffer from this kind of disorder) [26].
- To recognize a person as a disabled person or a person with limit possibilities in health it is necessary to carry out federal medical and social expertise.

Thus, e-learning can offer a rich choice of learning experiences that fit in with specific needs, aspirations and learning styles, and so it can...facilitate personal growth and professional development" [10]. Today the amount of universities providing distance education increases rapidly.

The e-learning process is characterized primarily by its interactive organization, requiring teacher-student or student-student interaction. Any e-learning course can be designed for mass or individual training. The first case is envisaged to rely on an electronic textbook (tutorial, course), in the second one, individual students are taught by the teacher according to the individual program. In each specific case, this program is built according to the student 's initial task performance [17]. Videos, CDs, educational television, radio, textbooks, and books should not be confused with e-learning unless they are a part of distance education and provide systematic and effective interactivity.

The classification of e-learning courses can be carried out according to:

- the purpose of training (professional, retraining of personnel relevant to the training program, advanced training of teachers in certain specialties, closing the gaps, in-depth study of the subject, etc.);
- discipline (depends on the amount of disciplines in the university curriculum);
- specifics of the subject area (in-depth study of a foreign language or training some speech activities reading at different levels of training, speaking, writing, etc.)
- level of special training of students, their age, etc. [27]

Alongside with a scientifically based, didactically approved design of an electronic textbook, using Information Technologies, it is important to provide a specific, interactive organization of the learning process, methods and technologies of learning. The form of e-learning itself suggests a personal-oriented approach. Among the diversity of personal-oriented training technologies, the most popular ones include training in cooperation, project method and multi-level training, where the project method is the most successful one among students with disabilities. This form of learning activity allows them to develop research and creative abilities [27].

3.1 E-learning for disabled students in Germany

The accomplishment of the concept of inclusive education in Germany implies the co-education of children regardless of their individual differences. An inclusive school is a school for all children. The idea led to serious transformations: changes in educational programs, the search for new technologies, organization of the corresponding training of teachers. Parents are considered experts in the upbringing and education of their children. Special attention is paid to the organization and maintenance of transitions of the child from one education level onto another ("kindergarten - elementary school", "school - professional institutions"). Today the main challenging issues are teacher training and retraining and the development of an early assistance system [28].

German universities emphasize such a group, as students with study-relevant impairments (8% of all German students, 6% of them suffer from invisible disabilities). This group includes students with impairments, special needs and chronically ill people [29].

If you are a disabled person and want to start a distance learning course, you should ask the distance school personally what services they can provide for people with disabilities. In many cases, distance schools have got special options that aren't mentioned on their website.

For many distance learning courses, attendance is a part of the study program. Sometimes students are to attend workshops, seminars or exams at the distance learning center. On these occasions, it is

important that disabled people can use the premises barrier-free. Also for the arrival to the location some schools have considered special measures.

Possible measures for disabled people with mobility and physical impairments:

- barrier-free seminar rooms;
- car service to the e-learning center;
- an offer of barrier-free accommodation for multi-day classroom seminars;
- own supervisor or helper [30].

For example, at a German distance learning center "BWL-Institut Basel" disabled students attend classes as rarely as possible, but even if they are to take an exam at the school's location, they are offered barrier-free rooms. Disabled students at this school also get a 20% discount for their education.

Some distance learning centers (e.g. FU Hagen, Rhein-Ahr-Campus) even have their own campuses that were specially made for disabled people, others hold their seminars in barrier-free hotels (e.g. AFW Bad Harzburg). FU Hagen's also got an online library that can be used by disabled people. In the IUBH Fernstudium e-learning school, they have designed exam materials in such a way that disabled students can take the exams online.

There are also special educational formats for blind people, for example, some distance learning schools offer study content in the form of PDF files that can be read by screen readers or study materials in braille which are provided for free (e.g. HIMS - Hagener Management Studium, SGD - Studiengemeinschaft Darmstadt, FU Hagen).

SGD - Studiengemeinschaft Darmstadt and FU Hagen also provide special virtual online courses for students with hearing disabilities and sign language interpreters in case students want to attend some seminars at the school.[31].

3.2 E-learning for disabled students in Russia

One of the priorities of the state program of the Russian Federation "Development of education" (2018 - 2025) (Approved by the Resolution of the Government of the Russian Federation of December 26, 2017, № 1642) is the project "Modern digital educational environment of the Russian Federation." Its purpose is to create conditions for systematic improvement of quality and expansion of opportunities of continuous education for all categories of citizens by developing the Russian digital educational space and increasing by the end of 2025 the number of university students that have learned online courses to 11 million people.

According to the University Regulations of "Educational terms for students with limit possibilities of health and disabilities" adopted by all federal higher education establishments in Russia [32,33], the higher professional e-learning courses should be organized or adapted for the following categories of students with limits of possibilities of health:

- Vision Disability
- Hearing Disability
- Mobility and Physical Impairments [13]

For applicants with disabilities opting for higher education, it is sufficient to establish the absence of contradictory evidence for training in the chosen sphere. If you have the status of a person with disabilities, you need to submit a certificate of the medical, psychological and pedagogical commission on health restrictions and an individual rehabilitation program. They may not pass the Unified State Examination, but pass the entrance tests to the university.

A special structural unit has been established on the basis of Russian universities - the Center for Psychological and Pedagogical Support of Students with Disabilities. Universities of Russia take all possible measures for disabled people with mobility and physical impairments:

- barrier-free, safe and convenient movement for low mobility students;
- availability of information and navigation support, duplication of stairs with ramps;
- special space in classrooms;
- provision of sanitary facilities;
- accommodation in students' hostels.

Moreover, students with disabilities can learn according to an individual curriculum. Within the established time frame, taking into account the peculiarities and educational needs of an individual student. The period of higher education according to the individual curriculum for persons with disabilities may be extended if necessary, but not more than a year. An individual training schedule suggests various forms of conducting classes: in an academic group or individually, at home using distance education technologies (University Regulations, 2014, 2016) [32,33].

Since 2017, many regions have started implementing employment support programs for young people with disabilities. According to I. Smirnova, the results of these innovations will be visible in a few years [2] (Smirnova, I., 2019).

4 CONCLUSIONS

The success of e-learning courses for students with disabilities greatly depends on educational material organizations. If a course (electronic textbook) is really intended for training, i.e. for interaction between a teacher and a trainee, the requirements for the organization of such a course, the principles of selection and organization, and the structuring of the material will be determined by the peculiarities of this interaction. If the course is intended for self-education (the vast majority of courses on the Internet), then the selection of material, its structuring, and the organization will be significantly different.

Finally, it is important to note that the problems that appeared at the beginning of integrating children with disabilities into the general education system, such as the lack of readiness of the societies for integration processes, interaction and acceptance of this category of children, did not stop this process. On the contrary, States and Governments of progressive countries of the world were committed to purposeful, expedient and effective improvement of integration processes in the education system in accordance with the adopted legal acts.

Nevertheless, distance inclusive learning is under the process of consideration, its further development meets some challenges that require a new approach to thinking and an immediate solution. Distance education nowadays faces the following problems:

- lack of specially trained personnel;
- deficiency of direct emotional influence of the teacher on the student in order to support his interests and educational motivation (according to the interview with the students with disabilities, they prefer full-time attendance to distance one because of the possibility to socialize, that is why at the beginning of the course, personal familiarization with students, their interests, family, living conditions is recommended);
- deficiency of technical and methodological support of the training process;
- lack of such personal qualities as responsibility, ability to organize your time, independence and self-control, high motivation and cognitive activity in the performance of works, etc. (therefore, participation in the process of distance education of parents becomes mandatory).

There is no single strategy that is equally suited to schools and universities in all countries. But by adopting each other's experience, continuing to look for a new one and, above all, listening to the needs of people with limited possibilities of health, we would be able to create an ideal inclusive educational space in the nearest future.

REFERENCES

- [1] Federal Act of Education in Russia, Accessed 13 October, 2019. Retrieved from <http://www.assessor.ru/zakon/273-fz-zakon-ob-obrazovanii-2013/>
- [2] I. Smirnova, The Amount of Disabled People in Russia, Accessed 16, October 2019. Retrieved from <https://invalidu.com/raznoe/kolichestvo-invalidov-rossii>
- [3] A. Sander, (2014). Konzepte einer inklusiven pädagogik. *Zeitschrift für Heilpädagogik*. №5 pp.240-244. 2004.
- [4] R. Ommerborn, R. Schuemer, Distance learning for disabled people: Prerequisites, forms and opportunities. Germany: Fernuniversitaet Hagen, 2002. Accessed 13 October, 2019. Retrieved from https://static.aminer.org/pdf/PDF/000/231/486/hypertext_bestandsaufnahme_trends_und_perspektiven.pdf
- [5] S., Burgstahler, B., Corrigan, and J. McCarter, Making distance learning courses accessible to students and instructors with disabilities: A case study. *The Internet and Higher Education*, 7., 2004.
- [6] S. Parthasarathy, A Tracer Study of Disabled Distance Learners of IGNOU and their Employability. *Alto Porvorim*.GOA, India: 2010. Accessed 13 October, 2019. Retrieved from https://wikieducator.org/images/3/3a/SJ_Parthasarathy.pdf
- [7] M.Erickson, K. Larwin, The Potential Impact of Online/Distance Education for Students with Disabilities in Higher Education. *International Journal of Evaluation and Research in Education (IJERE)*, No.5, No.1, pp. 76-81,2016. Accessed 18 October, 2019. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1094580.pdf>

- [8] P. Cinquin, P. Guitton, H. Sauzéon, Online E-learning and Cognitive Disabilities: A systematic review, *Computers and Education, Elsevier*. 2019. Accessed 18 October, 2019. Retrieved from <https://hal.archives-ouvertes.fr/hal-01954983/document>
- [9] S. Moisey, Students with Disabilities in Distance Education: Characteristics, Course Enrollment and Completion, and Support Services. *Journal of distance education*, No.19, No. 1, pp.79-91, 2004. Accessed 18 October, 2019. Retrieved from <https://files.eric.ed.gov/fulltext/EJ807840.pdf>
- [10] D. Sekiwu, F. Naluwemba, E-learning for University Effectiveness in the Developing World. *Global Journal of Human-social science: Linguistics & Education*, USA, 2014. Accessed 18 October, 2019. Retrieved from <https://pdfs.semanticscholar.org/13dd/d25021c81bfe22258f84397f8356e51ef077.pdf>
- [11] B. Mapuranga, T. Nyenya, (). Open and Distance Learning Accessibility to Learners with Disabilities. *International Journal of Humanities Social Sciences and Education (IJHSSE)*, Volume 1, Issue 4, 2014. Accessed 18 October, 2019. Retrieved from <https://www.arcjournals.org/pdfs/ijhsse/v1-i4/1.pdf>
- [12] J. Mintz, Inclusive Pedagogy and Knowledge in Special Education: addressing the tension. *International Journal of Inclusive Education*, 2015. Accessed 16 October, 2019. Retrieved from https://www.researchgate.net/journal/1360-3116_International_Journal_of_Inclusive_Education
- [13] E.N. Elesina, *Distance Education for People with Limit Possibilities in Health*, 2018. Accessed 11 October, 2019. Retrieved from http://ext.spb.ru/2011-03-29-09-03-14/75-correctional/12024-Distantionnoe_obuchenie_lits_s_ogranichennymi_vozmozhnostyami_zdorovya.html
- [14] E. L. Nikitina, Problems of the development of inclusive education, *Scientific and methodical electronic journal "Concept"*, V.29, pp. 31–35, 2014. Accessed 13 October, 2019. Retrieved from <http://ekoncept.ru/2014/65278.htm>
- [15] L.V. Pokushalova, Distance Training - Educational System of Future in *Filologicheskie nauki, Voprosy teorii i praktiki*. Tambov: Gramota, No. 2 (4), pp. 200-202, 2009.
- [16] I.V. Suvorova, Models of Distance Education of Children-invalids in Russia, *Education and Science*, No. 1, pp. 90–103, 2014.
- [17] A.V. Khutorskii, *Internet in School: Manuals on distance education*. Moscow: RAE, 2000.
- [18] E.S. Polat, *Pedagogical technologies of distance learning*. Moscow: Academia, 2006. Accessed 14 October, 2019. Retrieved from http://academia-moscow.ru/ftp_share/_books/fragments/fragment_4773.pdf
- [19] A.F. Golovatch, N.V. Kokhan, Model of the Distance Educating for Children with Limit Possibilities of Health and Children-Invalids to example of the "Regional Center Educations", *Siberian Pedagogical Journal*, No. 4, pp.40-48, 2017.
- [20] I.V. Suvorova, Distance Education of Children-invalids in Russia: Possibilities and Problems, *Innovative projects and programs in education*, No.1, pp.64-67, 2015.
- [21] V.Z. Kantor, G.V. Nikulina, I.N. Nikulina, The Impact of the Institutional Learning Environments on the Development of Self-attitude in Pupils with Vision Deficit, *Journal of Pharmaceutical Sciences and Research*, Issue 9, No. 10, pp. 1912-1917, 2017.
- [22] V.Z. Kantor, Y.L. Proekt, Inclusive Higher Education: Socio-Psychological Well-being of Students, *The Education and science journal*, 21(2):51-73, 2019.
- [23] A.G. Stanevskii, L.P. Khrapilina, and A.S. Vinokurov, Mechanisms of Higher Inclusive Development for People with Audial Deficit, *Psychological and Pedagogical research*, Vol. 11, No.3, pp. 95 – 105, 2019.
- [24] M. Simonson, G. Berg, *Distance Learning*. Encyclopaedia Britannica, 2016. Accessed 13 October, 2019. Retrieved from <https://www.britannica.com/topic/distance-learning/Modern-distance-learning>
- [25] S. Goering. *Rethinking disability: the social model of disability and chronic disease*. US national library of medicine, 2015. Accessed 14 October, 2019. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4596173/>
- [26] Disabled world. Disabilities: definitions, types, and models of disability, 2019. Accessed 13 October, 2019. Retrieved from <https://www.disabled-world.com/disability/types/>
- [27] E.S. Polat, Distance education. 2019. Accessed 13 October, 2019. Retrieved from <https://gigabaza.ru/doc/101024.html>
- [28] D.E. Sheveleva, Specifics of Organization of Inclusive Education in Russia and Abroad, *Problems of Modern Education*, № 5, 2014.

- [29] S. Drebes, M. Gattermann-Kasper, C.W. Rößler, *Study and Disability - Information for students and prospective students with disabilities and chronic illnesses*. Berlin, Germany, 2013. Accessed 14 October, 2019. Retrieved from https://www.studentenwerke.de/sites/default/files/37_handbuch_studium_und_behinderung_7_auflage.pdf
- [30] F. Duvenbeck, M. Kaim, S. Puhl, *Counseling Center for Disabled and Chronically Ill Students*. Giessen, Germany: Justus-Liebig-Universität, 2015. Accessed 14 October, 2019. Retrieved from <http://www.uni-giessen.de/studium/dateien/informationberatung/dozentenleitfaden>
- [31] F. Haubner, *Distance Learning for Disabled People*. Emsdetten, Germany: Fernstudium direct, 2015. Accessed 14 October, 2019. Retrieved from <https://www.fernstudium-direkt.de/tipps-ratgeber/special-fernstudium-fuer-behinderte-menschen>
- [32] University Regulations on "Educational Terms for Students with Limit Possibilities of Health and Disabilities", 2014. Accessed 13 October, 2019. Retrieved from <http://mpgu.su/wp-content/uploads/2014/06/1.pdf>
- [33] University Regulations on "Educational Terms for Students with Limit Possibilities of Health and Disabilities", 2016. Accessed 13 October, 2019. Retrieved from <https://kpfu.ru/portal/docs/F1447377249/Polozhenie.ob.usloviyah.obucheniya.invalidov.i.lic.s.OVZ.pdf>