



## TEACHING ENGLISH IN INCLUSIVE GROUPS OF BLIND STUDENTS

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### ABSTRACT

*This article discusses teaching English based on inclusive education of blind students, and the author of the article proposes a completely new approach to teaching blind people any didactic subjects using a foreign language as an example. This modern methodology may be attractive also because it is generally available to all people with visual impairments, regardless of nationality and the language spoken by the students*

The right to education belongs to all children, including children with disabilities, regardless of the causes of disability. Ensuring equal rights and equal opportunities for a child with disabilities is a priority in the field of modern education. According to the World Health Organization, there are 246 million people with poor vision and about 39 million blind people worldwide. Is it worth talking about the need to educate the blind when almost every fifth blind person can get a job with some help and training? However, accurate statistics are almost impossible to find. Various experts claim that the number of blind people is actually much higher [1]. The main and most relevant area of the education system reform is "inclusive education", recognized as a tool for realizing the right of every person to education. Inclusive education is ensuring equal access to education for all students, taking into account the diversity of special educational needs and individual capabilities. Inclusive education means that all students, regardless of their physical, intellectual, ethnic, religious and other characteristics, as well as the socio-economic status of the family, have equal rights and are included in the general education system - they are brought up and educated together with their peers, where their special educational needs are taken into account [3]. Thus, inclusive education is considered as a dynamically developing approach, consisting of a positive attitude towards the diversity of students and the perception of individual characteristics not as a problem, but as opportunities to enrich the learning process. High quality education for all is the most important requirement of educational inclusion in international practice.

Inclusive education not only increases the status of a student with special educational needs and his family in society, but also changes the position of society towards such people and promotes tolerance and social equality.

Teaching visually impaired people English on the basis of inclusive education is an even more difficult task, but knowledge of the language expands the educational opportunities of such people, allowing them to become part of the global educational environment and feel socially adapted in society. In addition, visually impaired specialists with knowledge of a foreign language are few in Uzbekistan. The specifics of teaching people with visual impairments are due to limited access to information. A special system of measures and specific didactic materials are needed for their training. It is quite obvious that it is necessary to search for new approaches to creating rational methods of teaching, correction and rehabilitation of visually impaired people [3].

For example, it is possible to use didactic materials for students with visual impairments in inclusive education. Reliance on the speech experience of visually impaired students and specially developed didactic materials are intended to involve them in the practice of foreign language speech activity. During classes, the teacher should comment on what is written on the board, as well as duplicate tables and diagrams in printed form [3]. Such presentation of material presupposes the teacher's ability to convey foreign language information of a professionally oriented nature to different categories of students.

For students with visual impairments, special requirements are imposed on the materials, which must be offered in the form of an audio file, an electronic document, a printed document, including in Braille [4]. However, such documents may be inconvenient due to the peculiarities of presenting the raised-dot font, which reduces the speed of reading texts, or impossible, since some students do not know this font, so materials in Braille should be used only in individual cases. Accordingly, preference is given to electronic textbooks and audio books [2]. The text of a printed document in a foreign language should be presented in a sans-serif font of 20 pt size, double-spaced; the use of italics is undesirable, but boldface and highlighting of key terms are possible. Invaluable assistance is provided by compensatory means in accordance with visual impairments, which, on the one hand, allow for a larger font, and on the other hand, increase the time spent working with devices such as a tablet, screen access programs (JAWS for Windows, NonVisual Desktop Access, etc.), Braille displays, camera magnifiers, voice synthesizers (eSpeakNG, RGVoice, etc.). Accordingly, it is necessary to develop students' experience in using these means in order to master a foreign language. The experience of introducing the Communicative English for Visually Impaired People program [5] into an inclusive university environment is positive; it is based on test simulators for understanding dialogic speech by ear, which involve keyboard control. The increased working time of students with special educational needs is associated not only with the features of the specified compensatory means and presentation of material, but also with the individual characteristics of students' perception of foreign language information. These features include "artificial lighting of rooms from 500 to 1000 lux" [3], dosing of visual loads, changing types of activities, which together allow different categories of students to engage in joint practice of speech skills and abilities. At the same time, tasks that allow developing spatial orientation abilities are suitable for students with visual impairments, since such situations await them not only in the process of professionally oriented training, but also in the course of further employment.

Thus, analyzing the above, it should be noted that today there are quite a lot of computer hardware and software typhlotechnical means that provide people with visual

impairments with the opportunity to independently use a regular personal computer on the basis of inclusive education. These are programs for non-visual or screen access to information (screenreader), Braille display, Braille keyboard, Braille printer, speech synthesizers, etc.

Computer typhlotechnical means, according to the functions performed and the work process, are divided into means of relief-dot and sound output or input of computer information. The key tool for a blind or visually impaired user is a program for non-visual or screen access to information (screenreader). The program reads information from the computer screen and, using a built-in speech synthesizer, outputs visual text to a means of sound or relief-dot output [2]. There are quite a lot of screen access programs, but Non-Visual Desktop Access (NVDA) and Jawsfor Windows have become popular and have received the greatest distribution in the field of education. The free NVDA (Non-Visual Desktop Access) program, which translates as "non-visual access to the desktop", interacts with the Windows operating system, supports the Mozilla Firefox and Google Chrome web browsers, Microsoft Word, Excel office programs, and others. The built-in speech synthesizer reproduces speech in more than 50 languages [3]. One of the advantages of the NVDA program is its portability and the fact that it almost does not change the appearance of the operating system [4].

Another popular screen access program is Jaws for Windows. It is quite easy to use, it provides work with popular computer applications, outputs information using a speech synthesizer and on a tactile Braille display [5]. Sound output means include software speech synthesizers that convert text information into speech. Hardware sound output today, with the development of operating systems, has been almost completely replaced. Using a computer without the use of special hardware has ensured the accessibility of the computer for blind users [2]. There are many software speech synthesizers, for example, eSpeak, RHVoice and others. Important parameters that determine consumer properties are speech quality, quick response to an accompaniment and playback speed. To characterize the quality of speech, such concepts as "naturalness of sound", "phonetic intelligibility", "comfort of perception" and "adaptation time" are usually used [4]. The question of which synthesizer is better cannot be answered unequivocally, everyone chooses individually, but the one that corresponds to him in parameters or characteristics. Today, many operating systems, for example, Windows, have a built-in speech synthesizer. Based on the functional capabilities of the above-mentioned typhlotechnical means, it can be concluded that people with vision problems on the basis of inclusive education, having a personal computer with an installed screen access program or with a speech synthesizer built into the operating system and a regular keyboard, can use it without hindrance. "But one should not think that computer methods of access to information replace traditional Braille. So far, nothing convenient and universal than the relief-dot writing system for the blind has been invented. Not all information can be perceived by ear, for example, the proof of theorems is much easier to learn when reading. In these situations, there are no alternatives to Braille" [2].

Also, "a Braille display is indispensable when studying foreign languages on the basis of inclusive education, since foreign-language synthesizers, although they can contribute to the development of foreign speech perception, practically do not give an idea of the spelling of words. In addition, the perception of a foreign-language text by ear is much more difficult than reading" [5]. However, the results of this and other studies show that not all typhlotechnical

equipment is available to blind and visually impaired students for a number of reasons, including high cost and low level of material and technical support: "As shown by the researchers, the effective work of teachers in the field of social rehabilitation of visually impaired students is largely hampered by the following factors: insufficient provision of educational and methodological literature and individual typhlo devices - 43%, low level of material and technical support - 31% on the basis of inclusive education "[1]. In addition, computer technology is constantly evolving, updating, quality is improving, new programs and applications are created, but at the same time they quickly become obsolete. Accordingly, for the smooth operation of the educational process, problems of timely updating of equipment and software products will continue to arise. Realities do not always coincide with requirements or desires, it is necessary that methods for solving this problem be developed with the involvement of, for example, ICT tools.

The search for new ways and solutions that can serve as alternatives to expensive and less accessible programs and devices for people with visual impairments on the basis of inclusive education, especially for the completely blind, is an urgent task in typhlopedagogy. For the comprehensive development and training of students with visual impairments in inclusive education, the Braille font is necessary, just as sighted people need letter, digital and other symbolic symbols. Therefore, the use of ICT should be considered as additional means that expand the possibilities of the educational process in inclusive education. The development of adaptive educational programs with the involvement of ICT tools that promote high-quality assimilation of educational material, requiring a minimum necessary set of computer typhlo-tools, will be an additional solution in this problematic situation. The undeniable advantage of the proposed methodology is its accessibility and ease of use, which may be appreciated with the expansion and implementation of new educational programs by the authors using this methodology. This methodology provides a new algorithm for navigating the work on the training program, which can be further applied to the development of similar training programs in other disciplines and foreign languages. Improving the teaching of a foreign language to students with special educational needs, especially visually impaired students in inclusive education at a university, is based on the implementation of a multisensory approach. It determines the change in organizational forms of professionally oriented training, reflecting the features of foreign language interaction of different categories of students, and individualized didactic support taking into account different forms of transferring educational material to students with disabilities. This approach also determines the choice of effective educational technologies, the implementation of which most accurately meets the special educational needs of university students.

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