

ASSISTIVE TECHNOLOGIES FOR VISUALLY IMPAIRED STUDENTS

Turg'unboyeva Zulxumor Ibragimovna

Kokan State Pedagogical Institute

Teacher of the Department of Inclusive Education

Abstract:

This article talks about assistive technologies and their importance, aimed at ensuring that visually impaired students with special educational needs can read through assistive technologies.

Keywords: special education, braille, technology, education, technical construction, inclusive education.

An assistive technical device is any element or part of an equipment/system (manufactured, modified or custom-made) used to implement and improve the functional capabilities of persons with special needs.

The use of assistive devices based on the use of high technologies in the educational process allows students with special needs to become full members of the community on an equal basis with their peers, helps to improve their social and communicative skills, and the mental potential of students. Yordamchi texnologiyalardan foydalanish talabalarni kerakli formatdagi o'quv materiallari bilan ta'minlaydi

The introduction of ICT into the practice of public schools caused a revolution in education, giving a green light to new educational methods based on the active interaction of all participants in educational activities. Such an approach helps to include each student in the community of his peers and thus contributes to the integration of students with special needs. Systematic use of a computer at home or in a hospital allows children with chronic diseases to have initial, professional training as a basis for their future profession, serves to develop creative abilities and activate the educational process.

I. _ Assistive technologies for visually impaired (blind) students

Special devices:

1. Braille display
2. Printer for printing with raised point font
3. Reading machine

Software:

software that supports the operation of the Braille display on the system

2. Word processing software for printing with raised point font
3. Voice input software

II. AT for students with visual impairment (low vision)

Special devices:

1. High quality monitor with lowest radiation level
2. Scanner
3. Reading machine

III. AT for students with hearing impairment (deaf)

1. Software that notifies the user of system or application events by displaying text or graphic messages on the screen.

software that allows simultaneous translation of speech into written speech (presented on the monitor screen)

IV. AT for students who are hard of hearing (hard of hearing)

Special devices:

1. Stationary sound amplification wired and wireless equipment for collective and individual use (multi-frequency FM systems)

Software :

1. Software that notifies the user about system or application events by displaying text or graphic messages on the screen.

V.AT for students with learning disabilities (learning difficulties)

Special devices:

1. Electronic calculators, dictionaries, encyclopedias

Software :

1. Software designed for computer voice control and text input

2. A program that allows you to create mind maps and work plans

3. Software that allows easy formatting of text by changing font shape and size, spacing between letters and lines, background color and contrast.

4. Speech synthesizers

5. A program that allows you to predict and complete words when entering text from the keyboard

VI. AT for students with severe speech disabilities

Special devices:

1. Assistive communication learning device

Software :

1. A program that allows you to suggest and complete words when entering text from the keyboard

2. Software that facilitates text checking and error correction, allows you to create and replace text data

LARGE Keyboards



The keyboard has brightly colored keys, which is important for children with low vision. The increased size of the keys helps to develop typing skills.

REFERENCES

1. Ibragimovna, Turg'unboyeva Zulkumor. "ZAIF ESHITUVCHI O'QUVCHILARNI NUTQIY SIFATLARINING RIVOJLANISH XUSUSIYATLARI." *Science Promotion* 1.2 (2023): 131-138.
2. QIZI, XONBABAYEVA MADINABONU ASQARJON. "Kasbiy faoliyatda zamonaviy logopedni kompetentligini rivojlantirish yo'llari." *International Conference on Developments in Education* Hosted from Delhi, India. Scienceweb-National database of scientific research of Uzbekistan, 2023.
3. Sadikovna, Rakhimova Khurshidahon. "Objectives and tasks of cochlear implantation." *ACADEMICIA: An International Multidisciplinary Research Journal* 12.4 (2022): 671-675.
4. Sodikovna, Rakhimova Khurshidahon. "Preparation of preschool children with cochlear implants for independent learning." *European Journal of Research and Reflection in Educational Sciences* 8.8 (2020): 159-161.
5. Sodikovna, Rakhimova Khurshidahon. "Use Of Innovative Technologies In The Formation Of Speech Skills In Children With Hearing Disabilities." *Euro-Asia Conferences*. Vol. 1. No. 1. 2021.
6. Shahnigor, Rakhimova Khurshidakhon Sadikovna Khomidova. "FORMATION OF KNOWLEDGE, SKILLS AND COMPETENCES IN THE PROCESS OF TRAINING CHILDREN WITH HEARING DEFECTS TO WORK." *Confrencea* 3.03 (2023): 188-192.
7. Sadikovna, Rakhimova Khurshidakhon. "COCHLEAR IMPLANTATION: AN INNOVATION IN THE DEVELOPMENT OF TECHNOLOGY, MEDICINE, DEAF PEDAGOGY AND SPEECH THERAPY." *Open Access Repository* 4.2 (2023): 321-330.
8. Sadikovna, Rakhimova Khurshidakhon, and Rustamova Feruzabanu. "CONTRIBUTION OF CHARLES MIKHAIL EPE TO THE EDUCATION OF DEAF CHILDREN." *Galaxy International Interdisciplinary Research Journal* 11.3 (2023): 563-566.
9. O'ghiloy, Rakhimova Khurshidakhon Sadikovna Kurbanuva. "CHILDREN WITH LOCAL MOVEMENT DEFECTS." *Confrencea* 3.03 (2023): 226-230.

10. Raximova, Xurshidaxon. "NATIONAL AND FOREIGN ADVANCED TRENDS IN HIGHER EDUCATION EFFICIENCY IMPROVEMENT." JOURNAL OF NORTHEASTERN UNIVERSITY (2022).
11. Sadikovna, PhD Rakhimova Khurshidakhan, and Nabiyeva Umidakhan. "ORGANIZING SOCIAL WORK ACTIVITIES OF STUDENTS WITH HEARING PROBLEMS." (2023).
12. Sadikovna, PhD Rakhimova Khurshidakhan, and Odilova Rislig'oy. "PROBLEMS OF PREPARING HIGH SCHOOL STUDENTS WITH HEARING DEFECTS FOR FAMILY LIFE." (2023).
13. Sadikovna, PhD Rakhimova Khurshidakhan, and Sharafuddinova Zuhra. "FORMATION OF MATHEMATICAL CONCEPTS OF CHILDREN WITH HEARING DEFECT USING INNOVATIVE TECHNOLOGIES." (2023).
14. Komiljon, Raximova Xurshidaxon Sadikovna Sattarova Kamola. "PEDAGOGICAL AND EDUCATIONAL SYSTEM OF EDWARD SEGEN IN SPECIAL PEDAGOGY." Conferencea 3.03 (2023): 63-67.
15. Sadikovna, Rakhimova Khurshidakhan. "CORRECTIONAL AND PEDAGOGICAL WORK SYSTEM OF AUDITORY-SPEECH REHABILITATION OF CHILDREN WITH COCHLEAR IMPLANTS." International Journal of Early Childhood Special Education 14.6 (2022).
16. Oppoqxo'jayev, Xojixuja, and Faxriddin To'ychiboyev. "MAXSUS EHTIYOJLI BOLALARNING TA'LIM-TARBIYASIDAGI TENG HUQUQLILIK MUAMMOSINI HAL ETISHDA INKLYUZIV TA'LIMNI AHAMIYATI." Инновационные исследования в науке 2.5 (2023): 27-33.
17. Madinakhan, Makhmudova, and Abduvahobova Irodakhan. "PECULIARITIES IN THE DEVELOPMENT OF PRESCHOOL CHILDREN WITH MENTAL RETARDATION." (2023).
18. Feruza, Teshabaeva, Mahmudova Madina, and Yuldasheva Dilbar. "The essence of inclusive education in developed countries." European Journal of Research and Reflection in Educational Sciences Vol 8.1 (2020).
19. Sobirkhanovna, Makhmudova Madinakhan, and Akhmedova Vazirakhan. "EFFECTIVE ORGANIZATION OF CORRECTIONAL-LOGOPEDIC WORK IN CHILDREN WITH CEREBRAL PALSY." Open Access Repository 4.3 (2023): 134-141.
20. Teshaboeva, Feruza Raximovna. "Literacy education of speech impaired children as a pedagogical psychological problem." Conferencea 5.05 (2023): 299-302.
21. Nabiyev, R. Sh. "MAKTABGACHA YOSHDAGI AQLI ZAIF BOLALARNING SHAXSI VA SHAXSLARARO MUNOSABATI XUSUSIYATLARINI ORGANISH METODLARI." Science Promotion 1.2 (2023): 129-134.
22. Shukhratovich, Makhmudov Khurshid, and Tahirova Mahliyo. "Ways To Increase The Vocabulary Of Mentally Retarded Children Of Preschool Age Based On Plot Role-Playing Games." International Journal of Early Childhood Special Education 15.2 (2023).
23. Shukhratovich, Makhmudov Khurshid, and Isodullayeva Iqboloy. "PHYSIOLOGICAL FOUNDATIONS OF SPEECH ACTIVITY." Open Access Repository 4.3 (2023): 765-771.
24. Махмудова, Мадинахон Махмудов Хуршид. "Мақтабгача тарбия ёшидаги болаларни ёзиш ва ўқиш кўникмаларини эгаллашга тайёрлаш." Conferencea 4.04 (2023): 187-192.

25. Эркабоева, Нигора, et al. "Педагогик маҳорат: схема ва расмларда." Т.:“Наврўз (2012).
26. Erkaboeva, N., et al. "Pedagogical skills: in diagrams and pictures: Methodical manual." Tashkent: TDPU named after Nizami 14 (2012).
27. Эркабоева, Нигора Шерматовна. "ОСОБЕННОСТИ СОВРЕМЕННЫХ УЗБЕКСКИХ СЕМЕЙ." Ученый XXI века 4-1 (2016).