

E-Learning For Students Living With Disability

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ABSTRACT

E-learning is vital important avenue for promoting greater access for all the learners. The current need of e-learning is to be used as another mode of instruction, but also as a strategic tool for breaking down current educational barriers faced by students with disabilities in educational institutions. Students with disabilities are successful in virtual instruction but the success often depends, as it does in a regular classroom, on having accommodations and supports in place that meet the student's unique needs. Educational administrators need to ensure that resources are available to progress the advantages of e-learning for all students, and that accessible electronic learning environments remain a central priority.

Key words: *E-Learning, Online learning, Students living with Disability, Information Education and Communication, Opportunities, Empowerment*

Introduction

There is increasing trend to introduce e- learning or online learning both in courses taught on campus and in distance learning. Distance education and e-Learning is not necessarily the same thing and can have very different cost structures. Whether e-learning improves quality or reduce cost depends on the particular circumstances. ICTs in general and e- learning in particular have reduced the barriers to entry to the higher education business.

E-learning provides mechanisms for organising academic curriculum, delivering various modes of assessment and allow for synchronous and asynchronous communication between the instructors and the students. The students with special needs constitute a wide range of individuals from those with physical disability to cognitive or development impairment. The educational institutions make efforts to provide equal opportunities to the students living with disabilities to realize their full potential. They should participate in education and training on the same basis as students without disabilities and also make sure that they are not subject to any discrimination. In the present world, due to the progress in the IT industry, digital technologies are accessible and widespread which allows using them for providing students

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with new opportunities, irrespective of their abilities and disabilities. E-learning offers an opportunity to progress at their own pace.

E-learning is a platform to ease up the life of students living with disability and make their personal world a more comfortable environment. Online learning platforms and other information and communication technologies (ICT) allow students living with disability to get the same education they would've received in unconventional institutions. It is also an opportunity to help those people to get a quality education.

For students with disabilities, the right accommodations and modifications can be important for their success. Accommodation can change, how a student access information, participate in online activities, or demonstrates their learning. Facilitator does not change the curriculum. Modification, however, change what is being taught, or what a student is expected to learn and demonstrate. Accommodations can be made by adjusting the amount of work a student must complete, allowing extra time, adapting assignments, providing extra assistance or changing the physical setting of the online sessions. The facilitator identifies specific strategies to help the student succeed in E-learning.

Importance of E-learning among Students Living with Disability

The increasing use of information and communication technologies has brought changes to teaching and learning at all levels of higher education systems to improve the quality. Traditional forms of teaching and learning are increasingly being converted to online and virtual teaching and learning. The benefits of E-learning for the students living with disability are as follows:

1. E-learning provides convenience, students can feel a lot freer to participate more as opposed to being in a loud or noisy environment that affects concentration. E-learning also has easy access to the resources they need, which affects overall performance.
2. Students living with disability can have the option to study at their own pace. E-learning allows for convenient and enriching educational journey for the resilient students dealing with the disability.
3. E-learning can be flexible and adaptable. Visually impaired students can use braille keyboard. This innovative tool allows them to translate their actual thoughts onto the computer with ease. Hearing impaired students can also benefit from today's technology with subtitles in educational classes. It allows them to understand what the speakers are saying without having to hear their actual voice.

Strategies for E-Learning

Educational institutions started to develop technological partnerships with major industry leaders and disability groups for a variety of reasons. Disability organizations make good partners for schools and instructors who want to help their students with disabilities to achieve even more with their educational endeavours. For students with disabilities, the many facets or approaches that e-Learning offers more opportunities than ever before. For example, visual learners were able to benefit from applications in PowerPoint and Flash Multi-Media technology. Auditory learners could benefit from online classrooms with auditory lectures, Podcasts for students, as well as live chats. From a blended-approach perspective, some online programs offer both auditory lectures, as well as PowerPoint slide presentations. Also, live chats (both auditory and visual) offer more opportunities for a variety of learners. Below mentioned are the few strategies for E-Learning:

1. Define target audiences.
2. Test module on target audience
3. Decide communication strategy
4. Give people time and space to eLearn.
5. Notify users.
6. Decide how to measure progress and react
7. Focus on accessibility
8. Motivate the disabled students
9. Disabled students can post their work, articles, questions, stories or anything else that may relate to the topic at hand.
10. Workshops can be conducted to promote E-Learning.

Accessibility of E-Learning for Students with Disability

Many IT companies and organizations are working to upskills their team so that they can provide more accessible and inclusive programming, services and software's for the people living with disabilities and enhance their learning. E-learning helps in reducing barriers to participation that people with disability experience. Zoom, Skype or Google meet workshops can be conducted to provide a great overview of the relevant issues. Participants can discover some easy solutions for improving access and inclusion, and learn best practice to design the inclusive outset which can be tested by users with a range of disabilities. Videos should have subtitles and transcripts and images should have descriptive text.

E-learning content should be designed to make it more perceivable, understandable, and synchronised. With the increasing use of ICT in education, there are many opportunities to overcome the barriers which were encountered so far in the traditional educational systems. E-learning provides the possibility to apply an individual and inclusive approach in teaching and learning. When applying E-learning in teaching students with disabilities, the use of assistive technology is inevitable. Assistive technology includes tools, hardware and software that serves to adapt computers and other devices. Students with disabilities can use them like magnifying software, Braille, special keyboards or adapters for the keyboard and the mouse.

Youth living with disabilities using assistive technology can benefit greatly from e-learning, not just because it allows distance and flexible learning activities, but also because it helps students with disabilities in accessing resources which would otherwise present significant barriers for them. E-learning houses almost all of the information that can be digested through different means beyond the conventional five senses. What used to be a dream for the visual or hearing impaired and those with learning problems is now a reality, they simply need to know how to find all the helpful resources and explore them.

Assistive Technology Available for Students Living with Disabilities

Assistive technology is an important component of E-learning. It includes various equipment's, devices, tools and systems that help students with compensation, bypassing deficits and capabilities they might face due to their disabilities. There are devices and software available which ease up in the learning process for disabled people. Below mentioned are the few innovative technologies in E-Learning for Students living with Disabilities:

- a) **Modified Mouse:** The less restrictive environment for students is also created with the help of mouse alternatives. There are scroll wheels, trackballs and other helpful features that help those who have difficulties with motor control.
- b) **Modified Keyboards:** The Braille Keyboards with the larger images of keys, and special functions in keyboards that are programmed via software. All these input devices offer students with disabilities an opportunity for better control during the educational process on the Internet.
- c) **Touch Screen:** It would be useful as well as hands-free touchpads to control the mouse controls.

Applicability of E-learning for Students with Disability

1. Human speech recognition and synthesizing – Some kind of disabilities don't allow students to use handwritten text that is an integral part of the traditional education. Using technical tools, one can avoid the necessity to use paper and pen during the lessons. Such technology would also be helpful for students with disorders that don't allow to process visual information correctly.
2. Adaptive computing- This technology allows using digital devices to bypass challenging tasks. Screen reader applications with specially designed Braille keyboards allows visually challenged students to use the computer.
3. Augmentative communication – It helps students with speech problems to overcome the communication barrier. Such systems use picture charts, books, and specialized computers providing functions of word-prediction for more effective communication.
4. Web- Based Service – Due to some forms of disabilities, students with special needs can face issues associated with making over long distances. Web -based learning solutions allow providing educational services taking into account the interests of students and educational organizations. The task is to offer students an easy-to-use and intuitive tool for online courses, scheduling, and tracking the academical progress.
5. Web-based chatting – Web-based applications allows creating online classes that help students with disabilities to communicate with each other and the teacher. Such virtual classrooms allow both learners and teachers from different parts of the world to participate in live classes.

Conclusion

E-learning has changed the flow and direction of learning for disabled distance learning students. They can have access to online academic resources from the comfort of their own home, they can also communicate with fellow online learners and instructors without burdening themselves with hours-long commute. It would develop a positive attitude towards learning and foster a sense of motivation as opposed to being discouraged because of their limitations.

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